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of this leaflet.

DEPARTMENT INDEX

(Itemized Index of Articles is printed on Front Cover)

	PAGE
Editorials	115
Editorial Comment	119
Original Articles: Scientific and General	123
California Medical Association	145
Official Business: Executive Committee Minutes	145
California Committee on Participation of the Medi- cal Profession in the War Effort	146
Committee on Postgraduate Activities	150
Committee on Medical Economics	151
Committee on Legislation (Basic Science)	153
Committee on Public Health Education	154
Committee on Publications (Medical Writing)	155
C.M.A. Cancer Commission	156
Woman's Auxiliary	157
County Societies: Membership; In Memoriam	158
California Physicians' Service	159
Miscellany: News; Press Clippings	161
Medical Jurisprudence	166
Letters	166
Twenty-Five Years Ago; State Examining Board	168

EDITORIALS

CALIFORNIA ELECTIONS: PRIMARY, ON AUGUST 25th; FINAL, ON NOVEMBER 3d. THEIR SIGNIFICANCE TO MEDICINE AND THE PUBLIC HEALTH

**War Times do not Obliterate Civic Respon-
sibilities.**—Our Country being at war, there
may be some physicians who would contend that
state and local politics should have little or no
place for consideration at this time. Such an
attitude, however, does not make for efficient
service in either war or civilian activities.

Since the placement of responsibilities and
duties upon duly constituted agencies cannot be
permitted to lapse even during periods of peace—
because civilized nations must always carry on
their lives in orderly fashion—it is increasingly
important that under the stress and strain of exist-
ing warfare, careful thought be given concerning
the capacity for service of those upon whom rests
the responsibility for guidance of the State in
these present days of peril.

Service with the armed forces has caused the
withdrawal from civilian practice of many thou-
sands of physicians (the allotment for California
by the end of 1942 being not less than 2600 phy-
sicians in military service!); and it must be evi-
dent to all observers, that, once the war is over,
it will take some years of readjustment to again
bring back the practice of medicine to something
of the form which existed before December 7,
1941. If the war continues for several years, as
present circumstances would indicate, the condi-
tions will be aggravated.

It is of great importance, therefore, that no
laws be enacted that would add to present or
imminent burdens. Or, to put it otherwise, that
the interests of the public health and medical
practice should not be jeopardized through ill-
advised legislation at this time.

* * *

Primary Election on August 25th and Final Election on November 3d.

—This last state-
ment may remind us of our obligations in the two
state elections soon to be held—the Primary Elec-
tion on Tuesday, August 25th, and the final State
Election on Tuesday, November 3d. Every phy-
sician should be fully alert to his civic responsi-
bilities; and particularly acquaint himself with
the names and backgrounds of candidates for the
State Senate and State Assembly. It is the legis-
lators who enact the laws; and the merit of the
statutes which come out of the legislative hopper

at each biennial session at Sacramento bears a direct and somewhat proportionate relationship to the kind of law-makers who determine what laws they will approve. Our subject, therefore, takes on a somewhat simple form, namely, that only state senators and assemblymen of good character and judgment, with sound views on the underlying principles of the public health, be elected, if the interests to which we are committed shall be conserved.

* * *

Little Danger from Legislators of High Type.—With legislators of high type, there is little to fear, since their votes will be cast in favor of all legitimate interests and objectives, provided the same be properly presented.

Organized Medicine in California, as the spokesman for Scientific Medicine and the Public Health, has been obliged, every two years, to scan carefully the hundreds of prospective laws submitted at each legislative session, to make certain that no proposed statutes were included, which openly or furtively could have done serious damage to either public health interests or the practice of scientific medicine.

* * *

Special Obligation to Colleagues in Military Service.—To this obligation may be added the following: that physicians who remain in civilian practice now have a special responsibility in these matters, since those of us who are still at home must guard not only our own personal interests, but the rights of those of our fellows who are in the Medical Corps of the Army and Navy; and who, when they return to resume civilian practice, must take up again under disadvantageous conditions, the development of their personal practices. Physicians who, in days gone by, have been forced to build anew their personal practices that were lost somewhat through absence, can appreciate that such experiences may be neither pleasant nor remunerative.

* * *

Primary Election: Attitude Towards Candidates.—In California, the primary election will be held on August 25th. As usual, in every district, there will be aspirants for the offices of State Senator and State Assemblyman. However, regarding the primary stage of the election procedure, it is not wise to make partisan commitments or espousals of this or the other candidate; and especially so, under the name of a scientific medical society. Whatever support is given, should be through individual action, as from a private citizen. Also, if a number of acceptable candidates are available, it is probably wise not to over-promote one such, to the detriment of the others, lest, perhaps, a wrong guess be made, so that the successful candidate, who was not previously espoused, changes, through unfortunate prior opposition, from a possible friend into the rôle of an antagonist.

In the primaries, therefore, it is best to show

interest through individual action, securing if possible, for future record and use, all available information concerning the background and other attributes of each candidate, but avoiding outright, organized support or opposition.

* * *

Final Election: Preferable Course of Action.

—Once however, the primary election is over, and the candidates for the two or more political parties have been determined by vote of the electorate, special endeavor should then be made not only to secure all the information above indicated, but other data, in addition. For instance: who is the personal physician of each of such candidates; and who, among the Doctors of Medicine in a Senatorial or Assembly district, has the most intimate personal relationship with the candidates? That being decided, an effort should be made, through such physicians, alone or with proper members of the local society, to learn what are the reactions of the candidates in relation to basic principles concerned with the conservation of the public health and proper standards of healing-art practice.

Regarding such interviews, it should be remembered that candidates are not permitted to make preliminary election pledges concerning proposed legislation of specific nature. It is, however, always in order to discuss basic principles. But after all, only that is what the medical profession is interested in, namely, the fundamental principles concerned with the protection of the public health and proper standards of practice.

* * *

Past Rôle of the Medical Profession in Legislative Matters.

—For many years, physicians of California have seen one legislature after another convene, with comparatively few measures sponsored by the Doctors of Medicine. In fact, the profession may be said to partake somewhat of the party, "His Majesty's Opposition," as exemplified in the English Parliament, in that the profession is recurrently called upon to fight antagonistic legislation of detrimental nature, rather than to promote laws of its own making.

* * *

Proper Understanding of These Relationships Desirable.

—It is well to keep these foregoing facts in mind, since they explain upon what basis is founded the obligation of physicians to take an interest, not only in the election of legislators on August 25th and November 3d, but also in prospective laws that will be submitted to the California Legislature in the first and subsequent weeks of the year 1943.

The hope is also expressed that many physicians may be inspired in this war year, 1942, to take a somewhat closer interest in our state elections than at former biennial periods.

Likewise, that they may keep in mind, that they do this not so much for themselves, as for the profession of which they are disciples, a profession whose many sons are now battling for us

all throughout the world, wherever duty may have called them.

* * *

Basic Science Law will be on the November 3d Ballot.—By now, every member of the California Medical Association should be aware of the fact that the proposed Basic Science Law will be on the November 3d ballot as Proposition No. 3. In last month's issue of *CALIFORNIA AND WESTERN MEDICINE*, on pages 4-6, the Basic Science Law was discussed at some length. And if any member did not notice the comment, the hope is expressed that he will take the time to scan the story there outlined.

The Basic Science proposition, at the end of some twenty years of endeavor, is now on the ballot. It will become a law if the voters are made acquainted with its beneficent purposes. The campaign of education cannot be passed over to others. This is a measure that was espoused and promoted by the California Medical Association in an effort to provide additional safeguards in the conservation of the public health. To secure the approval of the California electorate, especially in times such as the present, a strenuous educational campaign will be necessary. Every physician, therefore, has in this matter a very distinct responsibility, of which he is here reminded, lest in the performance of his daily, routine work, he forget his obligations to the people of California, his profession, his fellows who are overseas, and himself. Develop the habit of talking, "A Basic Science Law for California," from now on. That is one way of making an educational campaign become productive of results.

**MEETINGS OF MEDICAL ORGANIZATIONS:
(a) COUNTY SOCIETIES; (b) HOSPITAL
STAFF MEETINGS. WHICH SHALL
HAVE PREFERENCE?**

Why the Reminder to Attend Meetings of Medical Societies?—Many members of the medical profession are only occasional attendants at meetings of their respective county medical societies and it becomes necessary, from time to time, to suggest to them, that it is largely through organized medicine, that scientific medicine—implying by that term the practice of medicine as it has been and still is carried on—has been able to do much of its work in the promotion of medical progress. It is good to remind ourselves of this fact, even though to some of our colleagues who find special pleasure in worshipping at the altar of superscience, such a statement, so bluntly put, may be received with skeptical nonapproval. We should be grateful, each and all of us, that of the 180,000 licensed nonsectarian practitioners in the United States, some 120,701 physicians—through membership in the hundreds of component county units of the constituent state associations composing our national federacy—have their names on the roster of the American Medical Association.

Pleasing though that thought may be, however, such massive numerical membership may not mean very much, if judged by the standards of real service. To pay annual dues to a society, a club or other organization is nothing of which one need be inherently proud. Such demands or assessments on the pocketbook, in themselves, only have significance if so to contribute involves denial of real needs or comforts.

* * *

What Good Membership Implies.—Membership in any group, in order to be of value to self and others, implies actual participation in its activities and the attainment of its objectives. Because the purposes of our component county medical societies are dedicated to ideals of great worth—the advancement of healing-art knowledge and the greater protection of the public health—it is the more regrettable that so many physicians permit themselves to develop a habit of nonattendance at the meetings of their local medical units.

The majority of the county medical societies hold only one meeting each month, or a total of about ten to twelve evenings in a year of 365 days. Yet many members defend their habitual nonattendance with one or other of a multitude of specious excuses. The practitioner who is battling for initial place, or who receives a call at the meeting hour, may be pardoned when he is absent. Many of the others, who choose their leisurely comfort in preference to contact and exchanges of opinion with colleagues, and make it a business not to turn out at the monthly gatherings, have no such excuse. A particular group of nonattendants who are worthy of criticism are those, who through greater success in life and fortunate backgrounds, are in position to be of special help to their fellows, but who show little interest in the profession's group affiliations.

The point here emphasized is this: that very few physicians are themselves such superlative individuals, in either knowledge or practice, that, without the good will and coöperation of colleagues, it would have been possible for them to have attained the stations in their communities which some of them are fortunate enough to occupy. If this be the case, then such colleagues should feel under special obligation to meet with their fellow members, to take part in the promotion of programs for both the scientific and organization sessions of their county societies. Coming back, now, to the initial statement that scientific medicine prospers, as it exists today, largely through the protection and aid of organized medicine, it follows that every member of the profession should give more than lip-service or dues-payments to the development of the societies, which collectively, constitute what is called, Organized Medicine.

Particularly is this true at the present moment, when those of us who remain at home must safeguard the interests of our fellows who are in the Medical Corps of Army and Navy. Let us all

resolve, therefore, if we have been carelessly or otherwise negligent in attendance at county society meetings, to improve in this respect.

* * *

County Society and Hospital Staff Meetings.

—One more thought, in relation to meetings of hospital staffs. In recent years, in order to promote higher standards in hospital service—through individual and collective effort and the work of attending staff members—much thought has been given to meetings of hospital staffs, mandatory attendance being required in some instances. Excellent and valuable as are such gatherings, however, they should not occupy a place paramount to that allocated to the county medical societies. Let it not be forgotten, that hospitals also need the support of organized medicine, and when their interests are endangered, they turn to the local and state societies for advice and support.

* * *

County Society Officers Should Plan Programs Now.

—Officers of county medical societies and their program committees also have responsibilities, since poor or hastily gotten-up presentations and papers, perhaps of only mediocre or lesser worth, are not sufficient compensation to listeners who may have disarranged their schedules in order to be present. The midsummer postvacation meetings will soon begin, and committees in charge should meet now, and outline, in at least skeleton form, the general nature and scope of the programs for the fall and winter months. Such consideration and prearrangement may go far in securing a better attendance than would otherwise be possible. The truth of this has been shown in many societies, the meetings of one year being excellent and well attended, and in another year the reverse, according as the officers in charge gave time and thought to adequate preparation. Good programs cannot be drawn out of the thin air. They must be carefully arranged, and in advance. Officers and program committees, having been honored through official positions, should do their bit in this, and strive to meet these responsibilities. Good attendance at the meetings of county societies will make it possible for organized medicine to do its work to better advantage. Excellent programs will promote such better attendance.

ON VARIOUS TOPICS: A.M.A. SESSION—FATE OF TWO C.M.A. RESOLUTIONS; INSTITUTES ON WARTIME INDUSTRIAL HEALTH; TRIBUTES TO THE MEDICAL PROFESSION BY CALIFORNIA NEWS-PAPERS; TUBERCULOSIS SUPPLEMENT IN THE JULY NUMBER OF C. & W. M.

A. M. A. Session: Fate of Two C. M. A. Resolutions.—In Atlantic City, where the American Medical Association in June last held its 93d annual session, two resolutions were pre-

sented by C. M. A. delegates, in accordance with instructions given by the House of Delegates of the California Medical Association at the recent Del Monte meeting on May 6th.

The minutes of the C. M. A. House of Delegates appeared in the July issue of CALIFORNIA AND WESTERN MEDICINE, and the hope is expressed that many members have taken the time to at least scan the pages, 59-91, which record the proceedings, and to acquaint themselves with the matters in which our component county societies are interested.

Special mention may be made of the following resolutions: (a) Relations between Physicians and Insurance Companies, by Dr. Garland (pages 67 and 87); and Rebates, by Wilbur Bailey (pages 67 and 87). These resolutions were presented to the House of Delegates of the American Medical Association, the first by Delegate Kinney (see J.A.M.A. of June 27, on pages 725 and 728) and the second, on Rebates, by Delegate Wilbur (see J.A.M.A. of June 27, on pages 724 and 728).

Because of their importance, excerpts from the reports of the Reference Committees to which these resolutions were sent, appear in this issue, in order that members of the California Medical Association may know what action was taken by the national organization*.

* * *

Institutes on Wartime Industrial Health.

—In the July issue of CALIFORNIA AND WESTERN MEDICINE, on page 101, in the Postgraduate Activities department, appeared a preliminary announcement and outline of a tentative program for meetings to be held as follows:

San Francisco on August 18 (Tuesday).

Crockett on August 19 (Wednesday).

Oakland on August 21 (Friday).

San Diego on August 25 (Tuesday).

Inglewood on August 26 (Wednesday).

Glendale on August 27 (Thursday).

Huntington Park on August 28 (Friday).

The current issue, in the Postgraduate department, presents additional information. The importance of increased interest and knowledge concerning industrial diseases and injuries cannot be gainsaid. All concerned—governmental authorities and citizens alike—are fully aware of the significance of maximum output in essential industries, if our Country is to fight on to Victory. But that desired output will be possible only if fellow citizens who are engaged in such work are kept in best physical condition, so that every available man- and work-hour may count and be of service in the struggles ahead.

The Institutes on Wartime Industrial Health are sponsored by three organizations, which have united their efforts in a desire to secure best results: California State Board of Public Health, California Medical Association, and Western Association of Industrial Physicians and Surgeons.

Coöperation of officers and members of com-

* For A.M.A. proceedings, see page 151.

ponent county societies in the districts to be visited is requested. Members are urged to arrange their schedules to permit attendance at both afternoon and evening meetings, for the time will be well spent. Here is an opportunity for every physician still in civilian practice, to show his willingness to aid in carrying through our war efforts to successful conclusion.

* * *

Tributes to the Medical Profession by California Newspapers.—Were you among those who by chance noted the editorial and other excerpts taken California newspapers, printed in the July issue on pages 109-110, and containing complimentary comment on the contributions now being made at the battle and home fronts by the medical profession; and, if so, was it not a bit gratifying to realize that the work of physicians is really appreciated in many places?

It is unfortunate that physicians are often negligent in maintaining cordial, social and other relationships with the editors of local newspapers. It should not be forgotten that successful newspaper publishers are usually keen students of human nature. Otherwise they would not be able to sense or mold public opinion.

If you are acquainted with the editors of your local publications, why not maintain contacts, and on occasion express to them the appreciation of the profession for their kindly thoughts? It will be easier then to confer with them when public health issues are at stake.

* * *

Tuberculosis Supplement in the July Number of C. & W. M.—Mention has been made above of the joint endeavors of the C. M. A. and two other agencies, concerning publicity designed to promote interest and attendance at the Institutes of Wartime Industrial Health. In last month's issue of our OFFICIAL JOURNAL, in the Tuberculosis Supplement (pages 19-58) appeared another example of such cooperative work. Readers, therefore, who failed to note the articles have denied themselves an opportunity of securing a rapid survey of the latest work in tuberculosis diagnosis and therapy, as presented by California and other colleagues. The almost two score papers (of which there is an index on page 19 of the July issue), some in full but most in digest form, are worthy of more than casual inspection. Many readers will no doubt wish to lay this number aside for special future use and reference. The California Medical Association was happy to participate in the effort to bring to the attention of the physicians of the State the outlines of the excellent papers read at the joint meeting of the California Tuberculosis Association and California Trudeau Society, in April last.

The observer listens to Nature; the experimenter forces her to unveil herself.—Cuvier.

The life line varies inversely with the waist line.

The Greeks had a word for high living: Hyperpiesis.

EDITORIAL COMMENT†

"SPONTANEOUS" AVITAMINOSIS

Production of "egg-white injury," or "secondary biotin deficiency" in human volunteers is currently reported by Sydenstricker¹ and his colleagues, of the University of Georgia and the National Institute of Health.

The indigestibility of raw egg-white was first described by Steinitz in 1898, and afterwards studied in detail by Bateman,² who found that ingested raw egg-white is given off almost quantitatively in the stools (dogs, rats, rabbits and man) and exerts a mild toxic effect, as shown by the accompanying diarrhoea and progressive loss of weight. He attributed the indigestibility and resulting toxic effects to the antitryptic action of raw egg albumin. The toxic effects were studied in greater detail by Boas³ about twenty years later, who found that rats fed an adequate, well-balanced daily ration, except for a large excess of raw egg as the source of protein, developed a peculiar dermatitis, accompanied by a gradual loss of weight, which eventually proved fatal. Similar "toxic" symptoms were afterwards demonstrated in the chick, guinea pig, rabbit, monkey and dog fed an excess diet of raw egg-white. Fractionation of the egg-white soon led to the conclusion that the toxic agent is in the albumin fraction; conceivably a toxalbumin of teleological significance.

Boas found that aqueous extracts of yeast, and of many vegetables, are able to prevent or cure the "toxic" symptoms. The presumptive "natural antitoxin" in these foods, originally designated as "protective factor X"³ or "vitamin H," was afterwards shown by György⁴ to be identical with biotin. Applying newer methods of biotin assay, György⁵ and his colleagues developed a logical and consistent theory as to the dynamics of "egg-white injury." They found that uncooked egg albumin is capable of inactivating biotin in vitro, due to the formation of a fairly stable and relatively undigestible biotin-albumin complex, and suggested the term "avidalbumin" or "avidin" for the "toxic" factor. The "toxic" effects were presumably due to its power of binding or inactivating biotin, thus preventing adequate intestinal absorption of this necessary vitamin. "Egg-white injury" thus became a "spontaneous avitaminosis," due to gastro-intestinal "biotin blockade." Tissue assays invariably showed a marked biotin deficiency in egg-white injured animals, in spite of adequate biotin in the ingested food.

In order to determine whether or not a similar "biotin blockade" is possible in man, the University of Georgia research group placed a small

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

group of human volunteers on a diet consisting of polished rice, patent white flour, farina, cane sugar, lard, butter, and lean beef, having a total daily food value of 1960 calories. To this was added 200 gm. of dehydrated raw egg white with a caloric value of 928, plus adequate supplementary amounts of thiamin chloride, riboflavin, nicotinic acid, vitamin A, ferrous sulphate and calcium lactate.

After about three weeks on this diet all volunteers developed a fine scaly desquamation of the skin, which however disappeared spontaneously in seven to ten days. During the seventh and eighth weeks all subjects showed a pronounced grayish pallor of the skin and mucous membranes, with a return of the fine branny desquamation by the ninth week. Mild depression progressing to extreme lassitude, somnolence, and mild panic state was noted in most subjects, accompanied by muscular pains, hyperesthesia, localized paresthesias, anorexia and occasional nausea. There was a definite diminution in the hemoglobin content of the blood, a striking rise in serum cholesterol, and a marked diminution in biotin excretion in the urine. The four subjects excreted an average of about 5 micrograms of biotin daily, as compared with their previous excretion of 40 micrograms.

Vitamin therapy was begun on the tenth week. This took the form of a daily injection of 150 micrograms of commercial biotin concentrate. Within 3 to 5 days after beginning this therapy the depression, muscular pains, precordial distress and anorexia were abolished, the ashy pallor of the skin disappeared, the serum cholesterol was reduced to normal and the daily urinary excretion rose to 55 micrograms biotin. Sydenstricker and his coworkers conclude from these results that human volunteers, maintained on diets containing adequate amounts of vitamins, iron and calcium, may develop "spontaneous avitaminosis," if approximately a third of the daily caloric intake is supplied by dessicated egg white. As in lower animals this apparent egg-white toxicity is presumably due to gastro-intestinal conjugation of biotin with "avidalbumin" or "avidin," which functions as an "anti-biotin."

It has long been a practice of poultry raisers to add charcoal to poultry feeds, under the impression that charcoal adsorbs bacterial toxins and other putrefactive products, and thus improves health and reduces mortality. Almquist and Zander⁶ of the University of California, however, have shown that the addition of 2 per cent charcoal to a basal diet, containing adequate (but not excessive) amounts of all necessary vitamins, almost invariably leads to a somewhat similar "spontaneous avitaminosis." Stunted growth, "curled-toe paralysis," incoördinations, multiple subcutaneous hemorrhages, prolonged clotting time and eroded gizzard lining are among the manifestations noted in charcoal-fed chicks, pointing to a multiple avitaminosis. This deduction was confirmed therapeutically, since each of these manifestations was prevented or cured on the oral administration of the appropriate vitamin, or

by changing to a commercial mash containing a considerable excess of this vitamin. Presumably charcoal has the property of adsorbing numerous vitamins from the gastro-intestinal contents, thus preventing adequate vitamin adsorption from the intestinal contents.

Thus far the phenomenon of gastro-intestinal fixation or inactivation of vitamin has been of little clinical interest except in cases of prolonged and habitual use of mineral oil laxatives. It was shown by Burrows and Farr⁷ that the addition of as little as 1.3 per cent mineral oil to a well-balanced diet causes lethal vitamin A deficiency in rats, death taking place in about three weeks. There is also⁸ adequate evidence of an intestinal inactivation of vitamin D. Demonstration that an excessive diet of raw eggs may be equally deleterious is therefore of suggestive clinical interest.

In order to prevent popular misconception, however, it might be well to emphasize the fact that adequate cooking destroys the "avidin" or "anti-biotin" in raw egg, and that its apparent "toxicity" is readily prevented by such biotin-rich foods as cabbage, spinach, liver, kidney and cow's milk. It is known that egg yolk is very rich in biotin, but unfortunately it contains only half the amount of this essential vitamin necessary to neutralize the "avidin" or "anti-biotin" in the accompanying egg albumin.⁹

P. O. Box 51.

W. H. MANWARING,
Stanford University.

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IMMUNOLOGIC EFFECTS OF SYMPATHECTOMY

After a year's wartime delay, studies of the effects of total sympathectomy on natural immunity and specific antibody formation in animals have been reported by Went and Lissak¹ of the Physiological Institute, Debrecen University, Hungary.

For two decades the rôle of the nervous system in specific allergic and immune reactions has been of theoretic interest. Experimental evidence has been reported by European investigators, suggesting the existence of a specialized "immunity

center" in the brain, initiating or coordinating specific antibody formation. Schambur² of the Moscow Clinical Institute injected *E. coli* and *E. typhosa* vaccines into the anterior chamber of the right eye of rabbits, and reported a local synthesis of specific agglutinins in the injected eye, with their "reflex" synthesis in the opposite eye. In many of his rabbits only a trace of agglutinin was demonstrable in the blood stream with many multiples of this amount in the non-injected eye. He translated these data as proof of a reflex local antibody synthesis by non-vaccinated tissues, presumably through a hypothetical "immunity center."

Although his alleged "reflex ocular immunity" could not be confirmed by American investigators,³ the probable rôle of the sympathetic nervous system in specific antibody formation has been quite generally affirmed. As early as 1898, Salomonsen and Madsen⁴ demonstrated a marked increase in antitoxin titer in horses as a result of the administration of parasympathetic stimulants (pilocarpin). Joachimoglu and Wada⁵ afterwards reported the opposite effect, a reduction in specific agglutinin production in rabbits as a result of the administration of parasympathetic depressants (atropin). In a recent summary of accumulated data Belák⁶ concluded that in their relationship to the autonomic nervous system antibodies can be divided into two groups: (i) a "sympathogenic group," including complement and normal opsonins, which are favored by sympathetic stimulants and inhibited by the parasympathetic, and (ii) a "parasympathogenic group," including antitoxins, precipitins, and bacteriolysins, which have the opposite relationship, being favored by the parasympathetic stimulants and inhibited by the sympathetic.

This division of antibodies into two neurogenic groups was of little practical interest at the time. With the development of the modern surgical practice of regional sympathectomy, however, the theory became of practical clinical value. The experimental evidence in support of the neurogenic theory of immunity was, therefore, reexamined by the Hungarian physiologists. They found the pharmacologic evidence inconclusive due to the presumptive direct toxic action of atropin, pilocarpin, etc., on antibody-forming tissues. To obtain conclusive evidence, Went and Lissák performed total sympathectomy on a group of cats; the operation being performed in several stages by the Cannon⁷ technique. Four to six weeks after complete recovery from the last stage of the operation, blood samples were titrated for complement and bactericidal power, *E. coli* being used as the test organism. Control titrations were made with an equal number of non-operated cats. Within the limits of the experimental error, the complement and colicidal titers were identical in the two groups. From this it was evident that the integrity of the sympathetic nervous system is not essential for the production and maintenance of

normal serum titer. Alterations of serum titer reported by previous investigators as a result of the administration of sympathetic stimulants or depressants are presumably due to direct toxic action on extra-neural tissues.

The same group of sympathectomized cats was afterwards tested for their ability to synthesize specific antibodies. Foreign proteins and non-viable bacterial vaccines were injected into these cats, with control injections into an equal number of normal cats. With the limited number of sympathectomized animals for such tests, no qualitative or quantitative differences were demonstrable between their power to synthesize antibodies and the production of the same antibodies in normal controls. From this they concluded that the sympathetic nervous system plays no rôle in the production or coordination of acquired humoral immunity.

Their data suggest that regional sympathectomy is without deleterious effect on natural or acquired immunity, and would be of no benefit in regional anaphylaxis. It should be emphasized, however, that their studies were confined to the humoral factors in immunity and anaphylaxis. With the obsolescence of the Ehrlich side-chain theory⁸ it is no longer axiomatic that humoral and cellular chemical defenses are either qualitatively or quantitatively identical. Effect of sympathectomy on fixed tissue defense is still an open question.

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MALPRACTICE PROPHYLAXIS

It is fundamental that every patient be cared for with meticulous attention to the requirements of good medical practice. This comprehends sufficiency of investigation, observation and treatment; utilization of every indicated laboratory aid; protection of those coming in contact with the patient; instruction, when necessary, of the patient and of those caring for the patient, so that all things needed may be carried out during the absence of the attending physician; recognition of the importance of psychological

factors so that the nervous, mental, and emotional balance of the patient may be constructively influenced by tactful handling and the institution of proper psychotherapeutic measures; making and preserving of a complete and accurate record of the history, examination, treatment and progress of the case.

It is also fundamental that, in undertaking the care of patients, the physician should accept only such cases as he is well qualified to handle. The physician must keep abreast of progress in his field, and should utilize accepted and recognized procedures. In any case, if the patient is not doing well, or is complaining or expressing dissatisfaction, a consultant should be brought in. The use of a consultant affords great protection in the event that a claim of malpractice is later made. It is recommended that protective use of consultants be made routine, even in cases where a consultant's fee may not be available. It is also important to exercise care in delegating duties to assistants, nurses, and technicians; and in maintaining professional instruments and apparatus, as well as a safe environment in which to work. Instruments should be checked and apparatus calibrated as required in the exercise of ordinary care.

It must be recognized that it is hazardous to sterilize any patient in the absence of a medical indication; that it is dangerous to telephone a prescription, because of the possibility of error in transmission; and that, without taking legal advice, it is unwise for a physician to testify at a coroner's inquest in a case wherein which he has been in professional attendance.

In any consideration of malpractice prophylaxis, keeping good medical case records is the most important single factor. It is desirable that a physician ask himself, from time to time, what he would wish to have in the record in the case under treatment, in the event that he should later be called upon to justify his conduct of the case in court. "Ideal" medical case records should be kept in every instance—records that would be presentable when offered in court; records that clearly show what was done and when it was done; records that indicate that nothing was neglected, that the care given fully met the standard demanded by the law. In the event that any patient discontinues treatment before he should or fails to follow instructions, let the record show it. A good method is to file a carbon copy of the letter sent to the patient advising him against the unwise course. The records should, of course, also contain the laboratory reports, consultant's reports, and certain miscellaneous forms which are necessary or desirable in particular cases, such as consent to operation, consent to autopsy, copies of reports required to be made by law; acknowledgment of hazards of particular procedures (shock therapy, fever therapy, x-ray therapy), etc.

The importance of tact can hardly be over-emphasized. It should be manifest especially in

the handling of the patient and the patient's family; in the avoidance of fee disputes, and unwise efforts and methods in the collection of fees (considering the provisions of the Statute of Limitations); in the avoidance of over-optimistic prognoses and, especially, of any promise constituting a guarantee of a particular result; in the avoidance of betrayal of privileged communications; in the avoidance of making any statement constituting, or which might be construed as, an "admission" of fault or negligence; in the avoidance of any reference to malpractice insurance protection; in the securing of legal advice before making any statement in regard to a malpractice claim or suit; etc.

A physician is not required to accept any patient. However, once the physician-patient relationship is established, the physician must give, or see that there is given, such care and attention as the case requires until the professional service is no longer needed, unless he is sooner discharged by the patient or unless he withdraws from the case. The physician may withdraw from the case, but he must first give reasonable notice, and there must be reasonable opportunity to fill his place. The fact that a physician is unable to attend a patient who needs him, merely because he is busy with other patients, will not relieve him of liability if the patient thereby suffers injury. It is desirable that a physician advise his patients of any intended absence from practice and that he recommend, or make available, a qualified, independent substitute.

The precipitating cause of a majority of all malpractice actions is found in the destructive comments or criticism of physicians in regard to treatment given to patients by other physicians. Commonly it is criticism by a succeeding physician of the work of his predecessor on the case. Legitimate criticism can rest only on full knowledge of the facts as gathered from all parties, from the physician who treated the patient as well as from the patient. Unethical criticism must be avoided.

An examination of the cases reveals the significant fact that malpractice claims arise almost invariably out of the first course of treatment. In other words, it is rare indeed that an old patient instigates suit against his physician. It follows that the physician should be "malpractice conscious," especially in dealing with the new or casual patient. Prevention is the best defense against malpractice actions.

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Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 145.

ORIGINAL ARTICLES

Scientific and General

MARCH FRACTURE*

A REPORT OF FIFTEEN CASES

MAJOR A. B. SIRBU, M. C., U.S.A.

AND

CAPTAIN A. M. PALMER, M. C., U.S.A.

Fort Ord

THE literature during the past year has begun to show some reports of a foot disability prevalent in soldiers and variously known as March Fracture, March Foot or Pied Force. This is not surprising, considering the fact that our military training program is now over eighteen months' old. Since Breithaupt, in 1855, first described the occurrence of localized, painful swelling in the feet of marching soldiers, we find mention made of the condition by medical officers of most armies. Pauzat and Poulet, independently, each described an insidious periosteal proliferation in the French Army in about 1880, and Stechow¹ made the first x-ray studies of the condition in 1897 with remarkably accurate observations.

Subsequently, a number of reports came from French and German authors. Surprisingly, there were no cases reported in this country, even during the last war. As a matter of interest, the first case of "March Foot" reported in the United States was that by Goldman in 1928. About that time isolated reports began to come from civilian

and etiology of this unusual condition. Is it a fracture or a tumor? Is it inflammatory, infectious or traumatic? Which comes first, the fracture or the periosteal proliferation? Some of the confusion and differences in opinion are undoubtedly based on the fact that so few cases were observed by any individual author. Furthermore, different stages of the condition present entirely different findings, especially by x-ray.



Fig. 3A and 3B.—Case 5.—AP and oblique views, 5 days after onset of symptoms.

Thus, Stechow and Kirschner⁸ were certain that it was a fracture initially, based on abnormal stress and strain, and that continued marching brought on a periosteal reaction with proliferation of callus. Deutschlander insisted he was dealing with a low-grade infection, a periostitis of the metatarsal shaft at the site of the nutrient artery, and so revived interest in the condition that it has been also known as Deutschlander's Disease. Jansen postulated that overaction of the interossei caused an absorption of lime salts, with resulting brittleness of the metatarsal and a secondary fracture. Mercer⁹ also suggests that there is at first a deposit of new subperiosteal bone at the expense of the cortex, and that this is followed by a pathological fracture from additional minor trauma. He even offers, as an alternative name, that of Perimetatarsal Osteoma. Finally, this concept is excellently defended by George Brandt¹⁰ in his work on "creeping fractures, transformation zones and overload injuries," a thorough summary of which may be found in the current Year Book of Radiology.

Notwithstanding these weighty arguments, we hope to show in our fairly representative series that this is a fracture, a stress fracture secondary to a developmental anomaly. In short, we agree that it occurs in young soldiers, unused to the rigors of long marches, but *only in those whose feet are inherently weak or flat, and mechanically unsuited to withstand the exertion which they are suddenly called upon to perform*. The fact that the early crack-fracture is occasionally not seen in x-ray is no criterion of its absence; for, as Watson-Jones¹¹ points out, similar insufficient fractures occur elsewhere in the body, particularly in the carpal scaphoid.

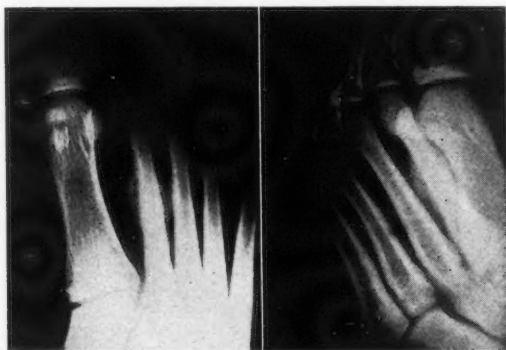


Fig. 1A and 1B.—Case 1.—AP and oblique views, 14 days after onset of symptoms.

practice with excellent reviews by Jansen,² Deutschlander,³ Dodd,⁴ Speed⁵ and Blake, Maseritz⁶ and Meyerding.⁷

As one might expect, much discussion and theorizing have been forthcoming as to the nature

* Read before the Section on General Surgery, at the Seventy-first Annual Session of the California Medical Association, Del Monte, May 3-6, 1942.

From the Station Hospital, at Fort Ord, Monterey County, California.

It has occurred to us that the pitfalls and difficulties of differential diagnosis to the unsuspecting observer might best be brought out by describing our experiences with our first case.

REPORT OF CASE

CASE 1.—On November 3, 1940, there came under the observation of one of us (A.B.S.) an eighteen-year-old soldier, who had enlisted just four months previously. He complained of pain and swelling in the right foot of about two weeks' duration. He could recall no specific injury, but rather attributed the onset to an incident of firing on the rifle range in a kneeling position, with undue strain on the right forefoot. The initial soreness became aggravated and associated with swelling after several long marches.

Our original diagnostic error is not surprising when one reads of the number of times that biopsy was necessary to rule out sarcoma, and of the case that Dodd reports where a woman's foot was amputated, only to find a benign March Fracture on pathological examination. We may add to this, with some humor, Watson-Jones' report that a patient's wife instituted divorce proceedings against her husband because she had been erroneously informed that he was suffering from syphilitic periostitis.

OTHER CASES

Since our first experience, over a period of eighteen months, we have observed and treated in

TABLE 1.—March Fracture
Analysis of 15 Cases

Fig. 2.—Table 1.

Name, Rank and Org.	Age	Length of Service	Duration Symptoms	Method of Onset	Metatarsal Involved	Length of Disability
1. H.E.C. Pvt. Engr.	18	4 mo.	14 da.	Firing in kneeling position, aggravated by march	2 R	25 da.
2. N.W.J. Pvt. F.A.	21	3 mo.	14 da.	Foot stepped on. Aggravated by march	2 L	7 da.
3. E.E.S. Pvt. F.A.	32	2 mo.	2 da.	Fell from calisson	2 L	17 da.
4. A.S.C. Pfc. Engr.	26	4 yr.	2 da.	Tractor ramp fell against foot	2 R	18 da.
5. L.C.N. Pvt. Inf.	25	3 mo.	5 da.	No injury. Gradual onset on march	3 L	34 da.
6. L.B.B. Pvt. Inf.	20	9 mo.	23 da.	Struck foot with pole	2 R	14 da.
7. W.A.S. Sgt. Inf.	20	19 mo.	4 da.	No injury, occurred while on march	2 L	16 da.
8. E.J.Z. Pvt. Inf.	28	2 mo.	8 da.	Stubbed foot against stump	3 R	29 da.
9. A.B.H. Pvt. Inf.	22	3 mo.	6 da.	No injury. Gradual onset on march	3 L	42 da.
10. D.W.H. Pfc. Inf.	30	5 mo.	23 da.	No injury. Gradual onset on march	3 R	42 da.
11. F.L.R. Pvt. Inf.	22	7 mo.	17 da.	Twisted foot while on march	2 L	42 da.
12. E.M.H. Pvt. Inf.	20	2 yr.	4 da.	No injury. Gradual onset on march	3 L	42 da.
13. A.S. Pvt. F.A.	23	4 mo.	10 da.	No injury. Gradual onset on march	3 R	None
14. M.B. Pvt. Inf.	19	5 mo.	3 da.	No injury. Gradual onset	3 L	None
15. E.S.B. Pvt. Engr.	26	15 mo.	60 da.	No injury. Onset after long march	3 L	14 da.
Average	23.7	10 mo. (11 pt. 4 mo.)	13 da.	11 pt. no injury	7—2nd 8—3rd	21 da.

Examination revealed diffuse swelling over the dorsum of the foot, but close palpation revealed a localized, fusiform thickening (of bony consistency) of the shaft of the second metatarsal in its distal half. This was rather tender to pressure, but otherwise he showed no signs of acute inflammation or infection.

The x-ray findings are of prime importance. (Fig. 1A and 1B.) These were interpreted as showing destruction of the cortex of the distal shaft of the second metatarsal and elevation of the periosteum, with new bone formation in a laminated pattern. A tentative diagnosis was made of Ewing's sarcoma, based on the periosteal reaction, the "onion-peel" appearance of the new bone and the absence of fracture. Fortunately, additional observation, plus a rapid recession of swelling and tenderness under the simple régime of bed rest, elevation and compresses, made us weaken in our diagnosis. Then we rediscovered the reprint of an article by Speed and Blake on so-called March Foot, in which it was brought out that, in one stage of the condition, the x-ray findings are indistinguishable from Ewing's sarcoma. The eventual progress of the case, with complete disappearance of symptoms and consolidation of the callus, substantiated our revised opinion.

the Station Hospital at Fort Ord, California, fifteen cases which have justified the diagnosis of March Fracture. This number constitutes twenty-five per cent of all fractures of the metatarsals (60) which we have seen during the same period. It further constitutes but two per cent of all fractures (618) treated in our service. Considering the condition as nontraumatic, it represents four per cent of the symptomatic foot disabilities (449) which have come to our attention.

CHARACTERISTICS

Certain characteristics of these cases are brought out by Table 1 (Fig. 2). All of the cases were enlisted men attached to field or tactical units, the training program of which calls for long marches and frequent drilling. As a rule, they were very young men with an average age of 23.7 years. The length of service since induction or enlistment was relatively short, the average being ten months. It must be noticed that this figure is greatly lengthened by but four men of over one year's service, whereas the large majority, eleven cases or seventy-three per cent, had but four months' service in the Army. As such they may be considered as recruits, which bears out the experience of Wilhelm¹² (with German soldiers during the Polish campaign), that March

Foot is noticed at the beginning of training of young soldiers who have never participated in sports or strenuous exercise. The previous occupation of our group was either sedentary or physical labor, which required no prolonged, exhaustive hiking or rhythmic marching. Wilhelm also suggested that the prevalence of the condition in the German Army might be the result of the rigid cadence they are wont to employ. In the Italian Army, where the gait is less rigid, very few cases have been reported.

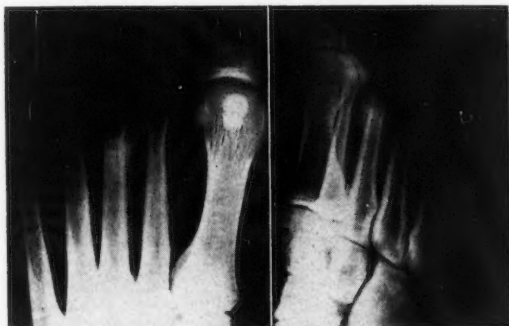


Fig. 4A and 4B.—Case 5.—Three weeks after onset of symptoms.

The gradual onset of symptoms is demonstrated by an interval between the initial soreness and date of admission to the hospital. This averaged thirteen days, during which time the majority continued to perform their usual duty, which included additional marching. Some discussion may be brought out by the alleged method of onset. In spite of the fact that many patients are prone to recall some injury as the cause of their disability, eleven of these cases, or seventy-three per cent, could volunteer no specific incident of trauma. The remainder claimed comparatively minor accidents, stubbing or bumping of the foot, insufficient to warrant immediate medical attention. All of which would tend to substantiate the general claim that this is a marching fracture caused by rhythmic movements, multiple mechanical insults, or micro-traumatism. Furthermore, continued prolonged weight-bearing could cause dissemination of the fracture hematoma and excessive callus formation, as Watson-Jones pointed out.

BONES INVOLVED

The metatarsal involved was the second in seven cases and the third in eight cases. This is a somewhat surprising fact, since the second is generally considered a trifle more prone to injury than the third. Kirschner's cases were divided into 40 second metatarsals and 31 thirds, as well as 1 fourth. *It is our opinion that the predilection for the second and third metatarsals is based on a fundamental conception of the predisposing causes of the condition.* X-ray studies

in every one of our cases revealed a relatively short first metatarsal compared to the second, so-called metatarsus atavicus. Add to this, the fact that the sesamoids, which bear the initial brunt of the takeoff, are even more proximally located and the shortening effect is further increased. The weight, which should be borne by the heavier and stronger first metatarsal, is shifted to the adjacent two metatarsals. The latter are long and slender and ill-equipped to bear one hundred fifty or more pounds plus a heavy pack. The base of the second and third metatarsals is relatively fixed, so that, as the full load is placed on the head, considerable stress is transmitted to the shaft which may crack at its weakest point, usually in the distal or middle third.

COMMENT

These observations are based on the studies of Morton¹³ on the comparative anatomy and evolutionary development of the human foot. In the transition from a grasping to a weight-bearing mechanism the first metatarsal gradually grows laterally to parallel the other metatarsals, loses its mobility and grows in length. It is commonly accepted that the first eventually attains a length which is equal or greater than the second. This is apparently not correct, and the confusion rests with the fact that the great toe generally projects further forward than the others. This is due to the relative size of the phalanges rather than the metatarsal. Lake¹⁴ showed that, while the great toe was longer than the second in sixty-nine per cent of cases, equal in seven per cent and shorter in five per cent, the first metatarsal head projected further forward in only thirty per cent, was equal to the second in ten per cent, and shorter in fifty-two per cent of cases. Our x-ray studies tend to



Fig. 5A and 5B.—Case 12.—AP and oblique views, 4 days after onset of symptoms.

corroborate these findings in general, and lead us to believe that the accepted conception of a normal foot may have to be altered.

From a developmental standpoint, however, in those individuals where the first metatarsal fails to reach at least a comparatively equal length, a potentially weak foot results, the so-called atavistic

foot. The posterior located sesamoids, as previously mentioned, tend to increase the shortening effect and a pronation of the foot occurs. With increased exertion on this structurally weak foot, the problem of fatigue of intrinsic foot muscles and relaxation of ligaments becomes important. Thus March Foot may be considered as an end result of subacute flat foot occurring in a congenitally weakened foot.

This developmental anomaly is not only noticed in all of our cases, but also appears to have been present in all reports in the literature where satisfactory x-ray studies are presented. Either the first metatarsal is shorter than the second (metatarsus atavicus) or it has not reached the parallel position (metatarsus varus). In either case the same result occurs, that of shifting an abnormal degree of weight to the heads of the smaller metatarsals. It was noticed, in one of Meyerding's cases, that the fracture occurred in a woman who had had a resection of the first metatarsal head at a bunion operation, thus definitely diminishing its length.



Fig. 6A and 6B.—Case 12.—Six weeks after onset of symptoms.

Barring the complication of a March Fracture, this type of foot tends to compensate for its inherent weakness as middle age is approached. The second, and occasionally the third, metatarsal hypertrophies under the continued strain of excessive weight. We have a number of films to substantiate this observation of Morton's in attempting to account for causes of pronation, metatarsalgia and allied static foot disorders.

TREATMENT

Treatment will be mentioned only briefly. Swelling and pain disappear rapidly when the foot is put to rest. Although a cast may be used, we have not found complete immobilization necessary. A metatarsal pad and strapping to relieve the weight from the head of the afflicted bone, is usually sufficient. To this is added an anterior heel or metatarsal bar to the shoe. Local heat, whirlpool, light massage and exercises to tone up the foot muscles are beneficial. The length of disability (average twenty-one days), is relatively longer in a military organization where a soldier must either be in the hospital or on

duty, which may call for premature hiking. No after effects have been noticed and no recurrences seen in our series.

REPORT OF CASES

Two typical case histories are presented with x-ray studies which demonstrate the early and late appearances of March Fracture.

CASE 5.—A private, age 25, with three months' service in an infantry regiment, presented himself with foot discomfort of five days' duration. Previous occupation was given as a lithographer. He gave no history of specific injury, but noticed onset of pain and swelling in the fore part of the left foot after a long march. Symptoms became aggravated with additional walking. The admission diagnosis was *pes planus*.

Examination was not remarkable except for localized swelling and tenderness, especially over the shaft of the third metatarsal, left foot. X-rays revealed evidence of an early March Fracture. It will be noted that in the A.P. view (Fig. 3A) the only demonstrable pathology was a slight periosteal proliferation about the neck of the third metatarsal. In the oblique view (Fig. 3B) a small, incomplete fracture was visible on the dorsal aspect of the metatarsal at the same site. The first metatarsal is shorter than either the second or third. Also note that the fracture occurs through the slenderest portion of the bone, presumably its weakest point.

Check-up films taken three weeks later (Fig. 4A and 4B) revealed typical periosteal callus formation in a fusiform pattern about the fracture site. The latter is now visible in both views, saucer-shaped with concavity distally and union about complete. Later x-rays revealed complete obliteration of fracture line with condensation and increased density of callus.

CASE 12.—A private, age 20, whose previous occupation was that of a student, came in with pain and swelling in the left foot. He likewise could remember no history of injury, but noticed gradual onset of symptoms four days previously, following a long march. His admission diagnosis was that of "ill-defined condition of the left foot."

Examination revealed moderate swelling over the dorsum of the foot, with tenderness localized about the third metatarsal. X-ray studies revealed very slight periosteal reaction on the medial aspect of the neck of the metatarsal in the A.P. view (Fig. 5A). The oblique view (Fig. 5B) revealed fracture lines through both the dorsal and plantar aspects of the cortex, with early periosteal proliferation. Here, again, we are dealing with a first metatarsal which is shorter than either the second or third. The latter is long and slender with the fracture apparently at its weakest structural point.

Check-up films taken about six weeks later (Fig. 6A and 6B) revealed a fairly large fusiform mass of callus in both views. The fracture is not visible in the A.P. view but may still be seen in the oblique view.

SUMMARY

1. The literature on March Fracture is briefly reviewed, including theories as to possible etiology.
2. Diagnostic problems are stressed, particularly in reference to Ewing's sarcoma.
3. A series of fifteen cases, as seen at one cantonment hospital, is presented with discussion of history of onset, clinical and x-ray findings

and treatment.

4. This group bears out the contention that the fracture is primary, and is related to a static foot disturbance based on faulty anatomical development.

5. A plea is made for the recognition of the condition in the armed forces, early treatment and possible prevention.

Station Hospital, Fort Ord, California.

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DUTY OF THE PHYSICIAN TOWARD THE CHILD IN WARTIME*

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IN outlining our present duties toward the child, we may be guided by the questions the anxious mother asks us. What shall I do myself, what shall I have done, to ensure the good health and safety of my child? War is upon us; that we cannot prevent. Pestilence, famine, and death we can largely turn away from the group for which we are fighting the hardest, our children.

INFECTIOUS DISEASES

In wartime these increase despite all efforts at control. This is due mostly to the movements of disturbed populations of men and animals, and breakdown of ordinary and specific methods of prevention. We are closer than ever before to the Orient and to increased contact with smallpox, diphtheria, typhoid, typhus, dysentery and plague. Our facilities for controlling these are excellent. They need only be kept in mind, and

the accepted methods of prevention practiced. We are also in danger of spread of some of these diseases from endemic foci in our midst, and from infection from such wartime diseases as tetanus and rabies. We should be entirely familiar with the methods of producing both active and passive immunity in all these diseases, and particular methods against some of these will be discussed by another speaker at this session. We should be able to answer the question of the mother: What inoculations do you advise, how are they given, when, and why? The efficacy of the generally accepted immunizations is certainly much less debatable in wartime.

We must mention the always increased incidence of tuberculosis following wars, and take measures against its toll. Tuberculosis has typically been spread throughout the world by migrating peoples, both in peace and wartime. In this war considerable numbers of people will come as refugees, evacuees, and returning crusaders from centers where tuberculosis is rife. Its incidence increases when people are crowded together, when food is scarce, and living conditions are generally lowered. All the factors mentioned will increase the number of possible contacts to our own children, and should be a stark warning to us.

Our fight, therefore, against the infectious diseases, points toward: First, intense immunization where possible; second, control of the movements of people and animals that may spread the diseases; third, proper housing, feeding, and health conditions of all humans in our midst.

NUTRITIONAL DISEASES

In this group we have at present facilities and the knowledge to prevent and to treat every medically recognized nutritional disturbance. We need only to be on the alert to use the knowledge we have and transmit it, in anticipation, to the mothers of the children under our care. We can truthfully give the mother reassurance on this score, as the job is comparatively easy. Regimentation itself is not necessary, and probably not advisable. If the Reich's Journal of Public Health can be believed, the infant mortality in Germany was 10 per cent higher for 1940, than in England for the same time. The vitality of the infant *Herrenvolk* is not impressive.

In this country we shall have few problems of food and children, except in possible cases of sudden evacuation or isolation. The mothers, however, should be prepared for this by education. While not belittling the emphasis on well-balanced diets, it may be remembered that most children, even small infants, if well to begin with, can live in good health for considerable periods of time, and in dire emergencies, on whole, evaporated, or dried milk, if supplemented by Vitamin C and iron. A simple fact to bear in mind is that if protein be given in amounts sufficient for growth, other elements except vitamins and iron take care of themselves. In health, even Vitamin C and iron deprivations take consider-

*Chairman's address. Read before the Section on Pediatrics, at the Seventy-first Annual Session of the California Medical Association, Del Monte, May 3-6, 1942. From the Department of Pediatric's Stanford University Medical School.

tion cannot be attained with the standard 14 x 17 size of films.³ This is by no means the case. In our experience the largest part of the time required in any method is consumed getting the patient into the proper position. Since this is the case, standard 14 x 17 radiographs can be produced, therefore, as rapidly as any of the sub-standard film sizes, or even photographic paper in rolls.

PROCEDURE

It must be remembered primarily that greater degrees of speed and efficiency can be obtained when the patients consist solely of cooperative young men, such as Army inductees, than could possibly be reached with mixed groups of individuals. Work can be arranged in a "production line" so that all of the technicians and assistants have relatively simple jobs with which they soon become familiar. Because the human element is involved, the work cannot be made to proceed entirely with mechanical efficiency, but speeds of 100 examinations an hour may become routine, although more than 125 an hour have been attained when medical students were examined, because of the intelligent cooperation of such a group.

The technique with 4 x 5 and 4 x 10 films does not differ greatly than when films of 14 x 17 size are used. Target film distance is decreased—a compromise necessitated by the immense x-ray output required with present photoroentgen equipment. For the same reason kilovoltages are increased so that the working range falls between 70 and 95, while the milliamperes second output must rise to 40 or 60 milliamperes seconds or even more.

The compromises necessitated by the requirements of the present-day photoroentgen units might be expected to produce films of inferior contrast and detail, and, as a matter of fact, they do. High kilovoltages, target-screen distances of 36 to 40 inches, screen grain and coarse focal spots all go to produce poorer detail in the image, while contrast is often objectionably marked. It is to be hoped that contrast will be lessened and detail improved when the single-coated 4 x 10 film comes into general use for photoroentgen work, rather than the duplitized film which is generally being supplied at present. The image on the back surface of the duplitized film is so faint that it serves largely to blur the light transmitted through the film instead of improving the sharpness of the image.

ON ACCURACY OF DIAGNOSIS: SOME COMPARISONS

Whether the inferior quality of the image made with the photoroentgen equipment would affect the accuracy of diagnosis markedly, could be determined by comparing large groups of single 14 x 17 chest films with 4 x 10 stereo chest films. Such a comparison is made below on groups of the same type of inductees with both sizes of films.

13,494 cases were examined on single 14 x 17 films. The findings were as follows:

	Number	Percentage
Group No. 1—Small calcifications (juvenile type)	882	6.5
Group No. 2—Excessive calcifications (juvenile)*	216	1.6
Group No. 3—Active pulmonary tuberculosis	144	1.1

In contrast is a group of 20,629 cases with stereoscopic examinations on 4 x 10 films which showed:

Group No. 1—Small calcifications (juvenile type)	886	4.2
Group No. 2—Excessive calcifications (juvenile)*	182	0.88
Group No. 3—Active pulmonary tuberculosis	274	1.32

A considerable decrease in the number of cases with calcifications appears in the studies made with 4 x 10 films. This is partly to be explained by the fact that the contrast is so marked in the photoroentgen films that soft-tissue shadows—especially in the hilar regions—have almost the same density as calcifications. The latter are, therefore, not indentifiable.

It was surprising to me that the rejections for active tuberculosis of the type in which actual parenchymal infiltration was present, Group No. 3, were as high (or even higher), with the small films as with the large ones. This can perhaps partly be explained by the magnification of small lesions which is apt to occur because of the short target film distance. It must be admitted, therefore, that even though these small films are lacking in many desirable diagnostic qualities, they do, nevertheless, serve as a relatively satisfactory screening method for mass examinations of the chest.

Of the cases of tuberculosis in both series, 47 per cent were classified as "minimal," 42 per cent were considered "moderately advanced," and 10 per cent were diagnosed "far advanced." Whether the inductees had had physical examinations of the chest made previously to x-ray studies or not, did not appreciably affect these percentages of tuberculosis discovered by x-ray.

A further disadvantage of the use of small films is to be found in the relatively long exposures which are now necessary. As a result, motion of the basal trunks often occurs, and it is, therefore, difficult to predict from the small films whether an increase in these trunk shadows is present or not. Similarly the cardiac shadow itself, because of the 36 to 40 inch screen-target distance, may appear to be enlarged, when actually this is not the case.

* Calcifications of the juvenile type, Group No. 2, were rejected according to the standards proposed by the Army Medical School, i.e.:

1. Parenchymal nodulations—multiple—more than 10 in number or if the diameter of any one be greater than 1.0 cm. or if more than one be larger than 0.5 cm.

2. Lymph node densities—multiple—more than 5 in number or if the diameter of any one be greater than 1.5 cm.

able time to produce disease, except in the case of small infants. In the last war most of the nutritional diseases were caused by lack of food in quantity, and the starving children of Europe would improve almost immediately if given in sufficient amount almost any kind of a single whole grain cereal. In voicing an optimistic note, we should not lose sight of the possibility of contaminated or spoiled foods, and the dangers of botulism, infectious enteritis, or abortus fever. A word should be said for the encouragement of breast feeding for small infants during wartime, especially if danger of evacuation or isolation be imminent. The importance of good nutrition in combating the first group mentioned, the infectious diseases, should be emphasized again.

PSYCHIATRIC DISTURBANCES

These are common among children in wartime, even when far removed from combat zones. Air-raid practice among school children without proper psychic preparation, careless talk from elders, present day radio and cinema entertainment may strike terror into the heart of a child. While discussions and decisions in this field lie properly among the child psychiatrists, all medical people are asked by mothers: What and how much shall I tell my child? While there are many who hold to the view that they should be told all, this point is surely debatable, and might we offer the suggestion that they should be told only when they ask? Is it not true that as nobody knows the answers, the longer the telling be postponed, the more it may become unnecessary to tell them at all? This, of course, is dependent on the maturity of the child, and within reason of safety to themselves. Morbid discussion, and display of fear should at all times be taboo. School and recreational facilities for the child should not be curtailed, and even in times of all-out production, the home life, his anchor to reality, should be as little disturbed as possible. During actual disaster, from English experience, it is known that children stand up in direct proportion to their elders, but we must also remember that in time of actual battle, children are more apt to become casualties without being injured. They may become lost, and injured and ill through wandering, after the battle is over.

RELATION TO NATIONAL DEFENSE

Is there any way in which we may aid in National Defense? In the number of selectees rejected for military service, the reasons for rejection have been largely: first, for faulty dentition, and second, defective vision. In many it was found that there had been evidence of these same deficiencies fifteen years previously. These defects, with others, such as cardiovascular and ear diseases, make up a relatively large group, remedial in part in early life if found by the physician. It is more than possible, and God forbid, that older children now under our medical supervision may see service in the present war. We might

conceivably add to the available manpower later by being on the alert now.

SUMMARY

The duty of the physician toward the child in wartime can be summarized briefly. It is to meet the increased hazards of physical and mental disease by not only doing our present job, but to intensify our work of education and prevention in all its phases. Never before in the world's history have children been cared for so well. It would still be a tragedy to win a military victory and find our children's standard of health lower than when we were attacked.

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CHEST X-RAY EXAMINATIONS OF LARGE GROUPS*

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BY general agreement radiographic examination of the chest is usually considered the most trustworthy procedure. Such surveys of large groups of individuals are becoming popular, and may be expected to become even more frequent even after the Army mobilization is over. These surveys made on large groups are really the cheapest possible form of insurance, for by this means cases of early or even advanced tuberculosis are discovered which might otherwise be inducted into the Army or employed by industry. Spillman has estimated that tuberculosis during and after the World War has cost approximately \$960,000,000 to date in compensation, vocation training, insurance, hospitalization. Within the next five years these costs will pass the billion dollar mark.¹ The importance of selecting men without disease of the lungs, therefore, can be easily seen. In other words, each case of pulmonary tuberculosis in a soldier who was in the last war has cost the Government an average of \$15,531 to date,² and the end is not yet in sight. In comparison to such large expenditures, the cost of an x-ray examination is negligible. Ordinarily the cost of x-ray film amounts to only about 20 per cent of the x-ray examination. This figure is not correct, however, when large groups of individuals are examined at one time, for under these circumstances the proportionate cost attributable to film rises considerably. For this reason many compromises have been made recently using films of 4x5 inches (or 4x10 stereoscopic), as well as 35 mm. film. Under these circumstances the fluoroscopic screen has been photographed in order to obtain a reduced image. Film substitutes such as paper have also been employed.

The impression has sometimes been given that satisfactory results and rapid speed of examina-

* Chairman's address. Read before the Section on Radiology, at the Seventy-first Annual Session of the California Medical Association, Del Monte, May 3-6, 1942.

vading microorganism; upon the degree of local trauma, that is, the amount of devitalized tissue; the presence or absence of foreign material acting as a focus; and the resistance of the patient locally and constitutionally.

RÔLE OF DEVITALIZED TISSUE

The rôle of devitalized tissue in bacterial contamination and infection was emphasized during the last great war as it never was before. *The observance of this phenomenon is the most important aspect in the care of war wounds.* A vital tissue will resist infection in varying degrees, but a dead piece of tissue serves as an excellent medium upon which all types of microorganisms, especially the clostridia, thrive. A scalpel wound has only a microscopic injury to tissue, a machine gun or rifle bullet has a comparative high velocity, and a sharp and narrow striking force so causes little comparative tissue damage; but an irregular shell fragment has a slower velocity, a greater striking force, and causes wider tissue damage.

The foreign body acts mainly as a vehicle of infection, but plays an important part in sustaining the infection. Bits of clothing or contaminated terrain are the most evil, and serve as niduses of infection.

The patient's resistance, both local and general, has to be reckoned with the same as in peacetime surgery. The general resistance is lowered in instances of hemorrhage, exhaustion from physical fatigue or exposure or sepsis. The local resistance is obviously dependent upon the nourishment of the injured portion of the body and its blood supply. The greater the trauma there results a greater contusion of tissue, a greater amount of extravasated blood, a wider dispersion into the tissues of extraneous material, and a larger area deprived of an adequate blood supply. An impoverished blood supply leads to tissue of poor vitality, an ideal culture medium, and an easy invasion by bacteria.

BACTERIOLOGY⁶⁻¹⁸

The most common bacteria infecting wounds in the last great war were the spore-bearing anaerobes, *Clostridium tetani*, *Clostridium welchii* and *Clostridium septicum*, and the hemolytic streptococci.

Terrain and climatic conditions play an important part, and yet the severe traumatizing injuries of peacetime and research investigation demonstrate that the same pathogenic microorganisms are present everywhere, in our woolen clothes, in our school yards, on the walls of our buildings, in our yards, gardens, streets and highways, and in the instance of the hemolytic streptococci, especially in the nasopharynx of many that are well described as "carriers."

The invasion of the *Clostridium tetani* causing tetanus is well controlled by the use of tetanus toxoid prophylactically. This microorganism, as all pathogenic microorganisms, has its invasion enhanced by devitalization of tissue such as

occurs in war wounds; and since it is a spore bearer, it can lie dormant under certain conditions in pathological tissues. Therefore, when surgery in a fresh war wound, or a secondary operation in a previously traumatized wound, is to be done, further stimulation of antibodies should always be obtained by giving a further administration of toxoid.

We have now reached that state of knowledge where the use of tetanus toxoid should be recommended to certain individuals and type of workers, i.e., those persons suffering from some form of allergy, and those workers where contact with animal and human excreta is common.

Gas gangrene is an infrequent complication of certain anaerobic bacteria, especially *Clostridium welchii* and *Clostridium septicum*. Many of us were confronted with it for the first time in the last great war. In 1914, the incidence of gas gangrene amongst the British Expeditionary Force amounted to over 12 per cent of the number wounded, and of these 20-25 per cent died. By 1918, due to earlier treatment of the wounded and excision of devitalized tissue from the wound, the incidence had fallen to 1 per cent.

These anaerobic, spore-bearing bacteria are found in all tissues, but it is chiefly in muscle that we see their complication, gas gangrene, develop. Quist divides the clinical evidence of these causative organisms into three groups: "(1) harmless saprophytes in ulcers with no pathogenicity, (2) pathogenic microorganisms producing an infection of the cellular connective tissues; gas infection of a wound or anaerobic cellulitis, and, (3) as invaders of muscle-true gas gangrene." He bases his contentions upon reported observations of reliable authorities.

Many of us, as Alanson Weeks and myself, in World War I, observed the presence of these microorganisms in chest, knee-joint and brain war wounds without any clinical manifestations of disease.

The anaerobic cellulitis or local wound manifestation is seen in subcutaneous tissue. Here occurs some devitalization of tissue, hematoma and the bacteria proliferate. There may be some extension of the products of the gas-forming microorganism to give local swelling and crepitus to some distance from the abscess, but this form of the disease, while it can go on to more extensive involvement and toxemia, usually promptly subsides with adequate drainage and removal of pabulum on which the microorganism develops.

GAS GANGRENE

"Gas gangrene" is an acute, spreading gangrene with gas formation and muscle involvement. It is not the muscle involvement alone that is essential, but an additional factor of the greatest of importance is the confinement to limited space—*tension*. Large traumatic wounds have been seen with exposed masses of evident anaerobic infection, dead muscle, gas formation, musty and putrid smell, and positive smears and cultures of *Clostridium welchii*, and yet the patients, while

CONCLUSIONS

1. The detail in 4 x 10 films is considerably less than the best attainable on 14 x 17 films, and little can be said about heart size because of the short target-screen distance. The films are, nevertheless, more satisfactory than might be expected for the purpose of finding active tuberculosis in mass examinations.

2. In the accompanying tables a large number of cases which were examined with single 14 x 17 film are compared with groups of similar individuals examined stereoscopically with 4 x 10 film in the photoroentgen unit. The percentage of active cases of tuberculosis discovered was a little higher with the stereoscopic 4 x 10 films.

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WAR SOFT TISSUE WOUNDS AND THEIR COMPLICATIONS*

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SOFT tissue wounds obtained under war conditions differ from those of peacetime accidental nature and, primarily so, because of the effect from the greater causative tearing and contusing force. As a result of this, a more widely distributed tissue injury occurs and demands a more complete, and to the uninitiated a far more radical, surgical treatment than employed in the correction of the usual peacetime traumatic wound.

War-wounds have with each succeeding war been caused in increasing number by high explosives, missiles with more irregular form and with relatively slower speed; and in this present world war to a greater extent by secondary objects, as broken glass, wood, masonry, etc. All of this leads to greater traumatism, and increasing incidences of the two great complications of wounds, hemorrhage and infection.

From the past wars we learned, but did not always profit as we should from recorded experiences. Ambrose Paré taught that the wounds be left undisturbed: "I dressed it, and God healed it." John Hunter, in his treatise on "Gunshot Wounds," in 1761, remarked: "A part of the solids surrounding the wound is deadened and is afterwards thrown off as a slough." Larrey, Napoleon's great medical Director-General, who developed the plan on which all modern military

medical care is based, in 1797, emphasized the value of treatment at the earliest possible moment. We learned, therefore, from Paré the healing process of physiology; from Hunter the nature of the injury; and from Larrey the importance of time. In the last great war, the lessons learned were the rôle of devitalized tissue, the value of early wound excision and, to some extent, the importance of immobilization.

WOUNDS¹⁻⁵

The nature of the soft tissue wound is ragged in outline and follows an irregular course through or into the tissues. Since tissues vary in their structures, i.e., the strong continuity of the skin, the elasticity of the blood vessel walls, the cellular friability of muscle and the rigidity of bone, the damage done varies with the tissues struck. The skin tears, the blood vessel wall flexes to one side, the muscle ruptures and has a comparatively wider area of tissue destruction, and the bone shatters, giving a secondary larger explosive effect. Since the missile causing the wound is, as a rule, of blunt irregular type, and is traveling at a comparatively slow rate of speed, a contusing injury from the blast force occurs along all sides of the wound, resulting in a varying devitalization of neighborhood tissues. In addition the irregular-shaped missile, be it primary or secondary, is prone to carry in with it pieces of clothing or other worn objects, and dirt or the local terrain. These factors, therefore, lead to an irregular shaped wound, of irregular course through the tissues, a devitalization of neighborhood tissue and a bacterial contamination of the injured tissues.

WOUND CONTAMINATION AND INFECTION

The soiling of all wounds under war conditions forces us to consider wounds in their two main stages, that of contamination and that of infection. Contamination is that stage where the bacteria are upon the surface and not as yet proliferative; whereas infection is the stage where the bacteria have invaded the tissues and proliferation is occurring.

The stage of contamination may exist up to twelve hours, but preferably should be considered up to six or eight hours. The degree of contamination varies, dependent upon the terrain, a heavily-cultivated soil or a sandy desert; the condition of the weather giving a dry warm dust or a muddy contamination of objects and clothing; the portion of the body involved, for example, the clostridia are more common about the lower extremities, especially the thighs; and the type and cleanliness of the clothing worn and the cleanliness of the individual, for example, the clostridia are found in a high percentage of instances to be present in woolen garments, and recent bathing gives less infection, as was well illustrated in the Russo-Japanese War.

The stage of infection or invasion of the tissues follows that of contamination. It is dependent upon the pathogenicity and virulence of the in-

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From the Woodland Clinic, Woodland, California.

somewhat toxic, do not show the clinical characteristics of gas gangrene. The disturbance of the blood supply is the important antecedent to proliferation of the infection. If a foreign body with microorganisms penetrates through a small opening and grossly injures the muscle without disturbing the overlying fat, skin and fascia, there is present the ideal condition for their development—namely, devitalized tissue, freedom from oxygen and an enclosed area for increased local tension within constricting fascial tissues, so that blood supply can be impaired to point of destruction. As a result, one sees involvement of a single muscle or of a group of muscles or an extremity as a whole. Some muscles, as the gracilis, are believed to have a limited and terminal blood supply, and are especially prone to development of gas gangrene. Supporting the importance of the tension of tissues, the confinement of retroperitoneal tissues or hematomata, as in a hemothorax infected by gas forming anaerobes, has been observed and reported as giving rise to inevitable fatal toxemia spreading cellulitis and gangrene.

The destructive process in the muscle primarily increases intrafascial tension from gas and fluids, a strangulation of the blood supply by compression, and a probable injury to the blood vessel wall by the toxin, and a resulting degeneration of the muscle fibers. Blood stream invasion of the microorganisms in any dangerous degree is not thought to occur until there is an overwhelming local infection. In the terminal stage a severe toxemia occurs, and because of a hemolytic effect from the toxins a jaundice frequently occurs.

CLINICAL SYMPTOMS AND SIGNS OF GAS GANGRENE

The clinical symptoms and signs of gas gangrene are:

1. A painful wound.
2. Increased sensitiveness to the local tissue.
3. General malaise.
4. Restlessness to a degree of increased mental alertness maintained almost to the end of life.
5. Nausea and vomiting.
6. An increase of the pulse rate without corresponding increase in the temperature.
7. Swelling of a nonpitable tenseness and often palpable gas crepitations.
8. Musty or mouse-like smell to the tissues.
9. Thin, muddy, sero-sanguinous drainage, with or without bubbles of gas.
10. An Icteric tinge to the sclera and skin from hemolysis.
11. Muscle of a deteriorating nature even to complete dissolution.

The clinical symptoms and signs above noted are not absolutely diagnostic, for hemorrhage, shock, or marked debilitation, and a less dangerous wound infection, can stimulate its development. Air, left in an operative wound or from a lung and chest wall injury, with later palpable crepitus, is stimulating to some deep thinking. It is well to remember that, within twelve hours, a

severe infection can develop, and that a diagnosis is made, not upon clinical symptoms so much as upon physical examination of the wound area. Therefore, when gas gangrene is thought to be likely, two-to-four-hour examination should be made in the immediate postoperative or post-traumatic periods.

Bacteriological examination is confirmatory. X-ray evidence of gas is valuable in confirmation, but the presence of gas in the tissues without clinical evidence is not definitely diagnostic. Let it also be remembered that gas or air in tissues pass along tissue cleavage lines, between muscle and subcutaneous tissue, but more especially along the main blood vessels. The extent of gas has no relation to the extent of a possible gas gangrene; for example, in a calf-muscle group infection, gas crepitation has been palpated as high as the groin region in several instances.

TREATMENT OF GAS GANGRENE

Treatment must be instituted as early and promptly as possible; Eliason spoke well in saying, "the mortality is dependent on the promptness with which treatment is instituted." Surgery is the first and most dependable treatment, both from a prophylaxis standpoint or for cure. Surgery consists in a complete eradication of the devitalized tissues on which the microorganisms live and proliferate, and the eradication of tension on the deeper involved tissues. This means removal of one muscle, a group of muscles or possibly an amputation, as conditions indicate. The fascial planes must be split to prevent tension on the underlying tissues, muscle especially. Viable, pink, contractile bleeding muscle without tension argues well in eradication of the infection. At times, amputation through a joint may be wise. Strict attention to the avoidance of carrying the infection by instruments or sponging to another part must be given. Avoidance of the use of a tourniquet that may give higher traumatization is recommended. Not closing the wound and packing with some dry gauze, or gauze with some oxygen liberating solution, is best. Avoidance of any constricting dressing is necessary, and observation every two to four hours for extension or metastases needing additional care should be made.

Serotherapy has proved its value, and we speak from personal observation and experience as well as from authentic reports in medical literature. A polyvalent anaerobic antitoxin from *Clostridium welchii*, 10,000 units, and *Clostridium vibron septique*, 10,000 units, in the therapeutic dosage according to the clinical response, is of definite value, both, we believe, prophylactically as well as curative. We recommend that where gas gangrene is anticipated, a therapeutic dose of gas gangrene antitoxin be given as prophylaxis, and be so given as to provide a continued source of supply for absorption by the body, namely 50 per cent intramuscularly and 50 per cent subcutaneously. For treatment purposes it should be given in adequate dosage, for the reaction is on

a quantitative basis. The need of treatment is judged by the pulse rate and patients' reactions generally as well as by the local involvement. Some believe it of added value if injected locally near the wound; although theoretically, since it acts through the circulation, it would not seem to be of any material consequence.

X-ray therapy, on the basis of a stimulating generation of H_2O_2 in the tissues, has of recent years been strongly recommended by several American authorities. Williams and Hartzell locally reported, in 1939, of its value, and are convinced that it is specific. Kelly has been the leader in urging this form of therapy and has many supporters, especially amongst the radiologists. It does seem that in all convincingly-proven cases other therapy, as serum or surgery coincidentally, have been employed. Quist is of the opinion that many of the successful results treated by x-rays have been those of gas gangrene cellulitis, a localized affair under any circumstance. Mullaley, an authority on gas gangrene, but apparently without any basis of experience in this therapy, says: "As to x-ray, I would hesitate to use an empirical method in a disease so dangerous and rapid." Maes, from reports, recommends it be used as an adjunct in treatment and that, as a prophylaxis, its use is justified. Personally, we believe it still in the experimental stage, and that its use should be only as an adjunct to surgery primarily and serotherapy secondly.

Local chemotherapy to the wound, in the form of the sulfonamide group, is as yet in the trial stage, but may play a valuable part in eliminating pyogenesis that assists the activity of the anaerobes in a symbiotic manner.

Treatment, therefore, should be prompt, surgery primarily; serotherapy prophylactically and for treatment, but x-ray therapy may be of value and the sulfonamides are worthy of trial.

STREPTOCOCCUS INFECTION

The streptococcus hemolyticus was the third and most common type, and most persisting type of wound infection in the last great war, and appears to be equally as common in this present world war.

Colonel Colebrook estimates that 70 per cent of all deaths due to infection of war wounds are caused by streptococci. Fleming and Porteus say that hemolytic streptococci were "responsible for almost all the severe septic complications of these 'war wounds' and found them in 90 per cent of all cases of compound fracture of the femur of 1 week old, and in all unbridged wounds of three to four days. Weinberg and Squire reported, in 1917, that streptococci were found in 36 of 91 war wounds; and of 49 per cent positive blood cultures, 44 were hemolytic streptococci.

Fifteen per cent of all wounds culture streptococci in the first 12 hours, while in a few days the percentage is much larger—90 per cent. Meleney, from a study of peacetime acute trau-

matic wounds, finds in 200 such wounds bacteria present in every instance, and no one can tell which wound will develop an infection, and that hemolytic streptococci were present in the stage of contamination in 17 per cent of instances.

The source of this infection is from the soil, from the contaminated soiled clothing, and from the unapparent slips of technique in wound dressings, and from the nasopharynx of individuals in contact with the wound. Hare stresses the last source especially, states 7 per cent of normal people are nasopharyngeal carriers of the important strain—hemolytic streptococcus pyogenes, (streptococcus pyogenes of Rosenbach); and that in the last war a wounded man, in his transfer from the regimental aid station to the casualty-clearing station or evacuation hospital, came in contact with 333 people, and often had his wound dressed three to four times before corrective treatment was carried out.

The incidence of this comparatively common infection is reduced by the removal of the contaminated and devitalized tissues and foreign material as early as possible in the stage of contamination, and the leaving of the dressing undisturbed so as to avoid reinfection from exogenous sources.

LOCAL USE OF SULFONAMIDES

There is, today, a further procedure that the majority of reports recommend as having an inhibitory effect upon the streptococci proliferation—the use of the sulfonamides locally.

The sulfonamides are believed to have a definite action locally, and to not interfere with tissue healing. Sulfanilamide is the more popular form, since it has greater solubility, endures for two to three days, does not tend to "crust" or "cake," and does not have the occasional sensitive reaction seen with sulfathiazole. Their action is believed to be bacteriostatic in a manner of affecting the nutritive substances—a starving of the streptococci. Their most dramatic effect is in acute infections, reported as most effective in superficial open wounds as from third degree burns; of little or no value in abscess formation, and of definite value in wounds in the period of contamination awaiting debridement. It is estimated that, used in a preoperative prophylactic manner, a "lag period" of proliferation of bacteria of 5 to 6 hours is obtained. Therefore, application of the sulfanilamide early and post-operatively in the wound is recommended, also that it be employed in a powder form and sprayed by a powder insufflator into all the wound recesses whenever used.

TREATMENT 19-25

Since the rôle of devitalized tissue is the most important aspect of war wounds, it follows that the treatment of this tissue is the most important aspect of war surgery. The modern proper treatment of this tissue is to remove it completely, together with any foreign material or debris at

the earliest possible moment always in the "stage of contamination." In the American, and to a large extent in the English literature, we speak of this procedure as *debridement*.

DEBRIDEMENT

Debridement is a word taken over from the French language and anglicized, and has become, because of common usage in the English language, to mean the meticulous excision of all devitalized tissue and removal of all foreign material from a wound. There are, however, many outstanding scholars in our medical fraternity, especially in England, who decry the usage of the word as we employ it, and steadfastly refuse to accept it except in the strict translation from the French language, to wit: incision, drainage and removal of *débris* only. It is a word first used by Desault in 1789, later in 1812 was employed much by Larrey, and was, in its original sense, the treatment used in the last war up to approximately 1918, when we Americans began our participation. By careless translation, therefore, the word has come to mean the meticulous excision of devitalized tissue and removal of *débris* resulting from any traumatizing or necrosing force. It has even a new associated verb *debride*, and adjective *debrided* and *undebrided*. The French speak of the same procedure as "épluchage." The Germans employ the term "surgical revision" or "wound revision," to mean the same. Care, therefore, in the reading of authoritative articles on war surgery must be given to the interpretation which the author in each instance gives it. For example, Trueta regards debridement as a procedure to obtain drainage. Bailey, an English surgeon, in his excellent text on "Modern War Surgery," (1941) urges the strict interpretation of the word. Ogilvie, (1938 and 1940) on the other hand, believes language is a "living thing" and uses the word in the larger sense. American authors as a whole use it in the larger sense. Personally, I am in favor of retention of the word with its fully acquired connotation; for, by common use, it has acquired a definite meaning to the majority, and carries much history.

The procedure of debridement was first suggested in 1897 by Friedrich, a German surgeon, who published some results of experimental work on excision of contused wounds, and advised they be treated as if they were neoplasms. It was not until 1918 when Gray, of Aberdeen, in the British Army, DePage of the Belgian Army and Lemaître of the French Army first called attention to the importance of the meticulous removal of all devitalized tissue and *débris*. It was first known to us as the "abortive treatment," and was recommended in the preinflammatory period. Later, because it was so routinely done at the Evacuation Hospital, it obtained the name of "Evacuation Hospital Operation."

OTHER PROCEDURES

"Judgment is the prime requisite." Gentleness

in handling of tissues and meticulous thoroughness of the removal of all devitalized tissue and foreign material and care to hemostasis, is the second requisite. Originally, curved scissors were, and still, in the deeper wound recesses, are the cutting instrument preferred. However, if knife-blade severance into live tissue can be made, it is better. Sponging should be of the blotting, not wiping type. Flex and extend the extremity in order to reproduce the exact position when the wound was caused, and the path of the missile will be more easily followed. The skin is treated as conservatively as possible, but opened sufficiently always in the longitudinal, not transverse direction, to adequately expose all pockets and recesses and devitalized tissue. The subcutaneous tissue needs removal of only the contaminated tissue. Fascial planes must be given special attention to prevent postoperative, valve-like action, (Pirogoff's Pouch), and thereby free drainage; therefore elliptical excision, or adequate transverse incision of 1 to 2 cms., should be done. The most important tissue, the muscle, is now attacked and the meticulous care to this layer above all other spells success or failure. All muscle, lacking the normal red-to-pink color, failure to contract when pinched, or to bleed when cut, is excised to the point of absolute vitality. Trueta put it briefly and strongly when he said: "To be conservative with the limb is to be radical with the tissues," and we add especially muscle. Bone loose, and devoid of blood supply, should be removed. Soiled bone should be rongeur'd away or at least cleansed with some antiseptic, and ether, an excellent fat solvent, we like best. Thorough search for bone fragments, driven to some distance from the path of the missile, is necessary. All foreign material is, of course, removed. It becomes apparent, therefore, that, previous to doing a debridement, a careful history of conditions of the injury, the position of the extremity, the material traversed by the missile, and a careful physical examination of circulatory, nerve and muscle function, are important. An x-ray plate is always wise. One must never forget that a hematoma or blood clot can serve equally well, as devitalized muscle, as a nidus of infection and so, lastly, careful attention must be given to hemostasis.

In war wounds under active military engagement, primary closure, except in certain specified areas of the body, cannot be safely done. Therefore, consideration of dressing is necessary. Many types of dressings have been tried. In the last great war, General J. M. T. Finney of our army, found, from a questionnaire to the American base hospitals, that the majority found wounds dressed with plain gauze were in the best condition. Trueta, from his experiences in the Catalonian Hospitals, preferred sterile dry gauze. Our observation was that dry sterile gauze was as good as any type of dressing, although the proliferative granulation tissue in the wound-healing tended to grow into its meshes. However, a retrospective view

of the wound care, with consideration of the excellent reports of Trueta and others in the Spanish Revolutionary War and the English surgeons in the present world war lead me to believe it was because wounds so dressed were less frequently disturbed than the wounds dressed with chemically-impregnated gauze.

REST²⁶⁻³¹

This has already brought a valuable lesson. John Hilton, in 1863, and Hugh Owen Thomas, father of our modern Thomas traction splint, in 1880, emphasized the importance of rest to healing tissues.

H. Winnett Orr of Lincoln, Nebraska, carried this a step further to absolute rest and noninterference with wounds involving compound fractures. Trueta, of Barcelona, and others associated with him, next added to our knowledge, and their results are now substantiated by others of experience. One should digest Trueta's reports, especially that small text written by him, "Treatment of War Wounds and Fractures," published in 1939. He primarily and rigidly did a debridement, packed the wound with dry gauze and then, if satisfied that infection had been adequately eliminated, applied, except for protection to bony points, a skin-tight plaster cast. In the lower extremity, because of the greater danger of infection, he might wait two to three days before applying a cast. He reasoned that movement increases the dissemination of infection and absorption of toxins due to interference with local defense mechanisms, through rupture of small capillary and lymphatic thrombi, by which the wound is isolated from the general circulation. With such care he reported 1073 cases of compound wounds with only .75 per cent of true clinical infection demanding removal of the cast. He also did change the cast from time to time. The greatest criticism has been that of the odor associated with the wounds so treated. Rudolph Matas, our most respected surgeon of New Orleans, was stimulated to make such criticism but after personal inspection of the excellent results, declared, "But when I saw them get well, with their wounds healed, I realized that 'not all cheese that smells bad is bad!'"

CONTINUITY OF CARE³²

Lastly, we wish to call to your attention an important lesson fortunately learned early by the American medical forces in the last war—the advisability of the surgeons following their own cases into the wards for the postoperative care. The need of this became apparent to many, as it did to Weeks and myself, for only the surgeon can know well what to anticipate. Robert Jones emphasized that "the principle of continuity of treatment and of surgical responsibility cannot be over estimated." Hart, in the present war, stresses this point and says, "with the surgery, the surgeon's essential task is only half over."

SUMMARY

1. Soft tissue wounds under war conditions have a more widely-distributed tissue injury.
2. It is well to consider these wounds in the two stages: the stage of contamination 6-8 hours and the stage of infection.
3. The types of infection and their treatment have been discussed.
4. The rôle of devitalized tissue in bacterial contamination and infection is the most important aspect of war wounds.
5. Debridement—the meticulous excision of devitalized tissue and removal of débris—is the most important aspect of treatment of war wounds, and should be done in the stage of contamination.
6. Absolute rest of the injured parts and infrequent dressings of wounds, are lessons of importance learned in this world war, and should be added to debridement.
7. Continuity of care by the original surgeon is most advisable.

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SOME CONSIDERATIONS REGARDING THE ETIOLOGY OF IMPETIGO CONTAGIOSA*

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BECAUSE the time allotted for presenting papers has been curtailed during this year's meeting to two half-days, I shall limit my address to ten minutes. This is not a formal paper, but rather a consideration of certain views long entertained regarding a most controversial question, i.e., the etiology of impetigo contagiosa. That the present warrants its consideration is found in an observation in the *Lancet* (2:275:41) in which Cruickshanks states that the disease, trivial in itself, can account for a fair percentage of invalidity among troops in wartime. In a recent discussion of a paper by Epstein on this subject, Sulzberger observed that he was not so certain that the fulfillment of Koch's postulates sufficed to prove the etiologic rôle of an agent in the case of skin inoculations, as he believed that one could reproduce the lesions of impetigo contagiosa with any one of several microorganisms isolated from a lesion of impetigo contagiosa because the other microorganisms were already present on the skin. I believe this observation would have been received with less enthusiasm than criticism but a few years ago. On reading it

I felt gratified; because, at long last, certain preconceived notions of mine were receiving a small modicum of support. I recall an early mentor dismissing my suggestion, of a filterable virus as being a probable cause of impetigo contagiosa with an expressive latin shrug that indicated I had in no small measure committed *Lesé majesty*; but this was at a time when extensive research in both Germany and France had shortly been concluded, and when that comfortable goal of type-classification and etiological proof had in general been reached. Epstein's paper corroborates these findings, and he reproduced the lesions of impetigo contagiosa from a pure culture of *Staphylococcus Pyogenus Aureus*. The subcultures, while yielding regularly the original strain in pure culture, were not apparently used in further inoculation experiments.

INFECTION OR CONTAGION

The conviction, that we were dealing with some agent other than staphylococci or streptococci, came many years ago during an epidemic of impetigo contagiosa in a nursery ward, its spread, in the face of the most elaborate and rigorous quarantine measures, being so uncanny that one eventually wondered whether we were not dealing with an infectious process proper rather than a contagious one. At a later date it appeared the long incubation period, in some cases up to twelve days, might explain the apparent inefficacy of quarantine methods instituted following the appearance of the disease.

Although impetigo contagiosa frequently follows injuries, it sometimes occurs on apparently intact skin. However it may be occasioned, certain phenomena regularly obtain. For a longer or shorter period of time following its appearance, it has a tendency to spread irrespective of therapy. While there are modifications in the tonality of impetigo contagiosa, the lesions are of such typical appearance as to be distinctive, and can be readily distinguished. On involuting, the lesions heal without leaving any scar.

It is difficult, in the light of the above, to believe these phenomena to be due to staphylococci, streptococci or to both. For we know these organisms to be ubiquitous in the skin, yet in no other skin infection where these organisms are found can a prognosis of the course and the resulting damage be made. And in no other infection of the body, where staphylococci and streptococci are commonly found, do similar changes occur.

A FILTERABLE VIRUS?

Now, if one premises a filterable virus as being the etiological agent in the production of impetigo contagiosa, all the phenomena referred to become possible of acceptancy. For the minor clinical variations could be explained as being due to the symbiotic action of the type of secondary organism dominant in the lesion, and it would seem that this is what has already been proven. Furthermore, assuming the theory to be correct, any

* Chairman's address. Read before the Section on Dermatology and Syphilology, at the Seventy-first Annual Session of the California Medical Association, Del Monte, May 3-6, 1942.

primary pure culture of staphylococci or streptococci would be so intimately associated with the virus, that it would be present in sufficient strength to reproduce the disease. It is doubtful, however, if pin-point subcultures would carry the virus over in reproductive strength.

We have, for several years past, carried on intermittent experiments, at widely-spaced intervals, based upon the acceptancy of the above premise, and we can state that on two occasions we have produced lesions of impetigo contagiosa on our arm using primary cultures of staphylococci. In neither could we produce lesions with the subcultures. The most depressing finding, however, was the fact that on several occasions we have been unable to reproduce the disease with material taken direct from freshly-denuded lesions which had not been previously treated. We were thus persuaded that regional as well as soil factors play no small part in the reproduction of the disease, and we believe other factors obtain. Certain is it that it is not as contagious as one has been led to believe; and although the frequent involvement of the face suggests a regional sensitivity, one's daily practice makes of necessity a covered area the region of choice for inoculation.

AUTHOR'S EXPERIMENTS

Our main efforts, however, have been in the direction of attempting to reproduce lesions of impetigo contagiosa with Berkfeldt filtrates of washings or swabbings taken from active lesions of the disease. In these experiments our greatest drawback has been in finding cases with unmedicated lesions. On Monday, March 16, 1942, a bedpatient at Olive View Sanatorium was brought to the clinic with an untreated vesicular type of impetigo contagiosa. The lesions were washed with some five c.c. of sterile water, by means of a sterile swab, into a sterile test tube. This was then passed through a Berkfeldt filter and, following a simple face-wash, several loopfuls of the filtrate were smeared over my entire face. The forearm was also lightly scarified with it. Some four days later my face developed several scattered itching points and these later showed a few discrete erythematous lesions. They were evidently finely vesicular, as the roofs were removed by my razor, leaving tiny rounded bleeding points. The following, or 6th day, I felt convinced I had developed impetigo contagiosa. As it is somewhat difficult to make a diagnosis on one's self and, in order to convince myself that it was not the result of wishful thinking, I went to Dr. Saul Robinson, who examined me and pronounced the condition one of impetigo contagiosa. It was not of stubborn character, however; and after an initial spread, it subsided within a week under therapy with hydrargyrum chloridum corrosivum, in bay rum. Approximately one cubic centimeter of the filtrate was given to the laboratory of Doctors Zeiler, Maner and Hammack, and this was planted in glucose agar broth. On the

fifth day following the culturing, they reported the filtrate to be sterile.

No extra care was taken in cleansing the face previous to applying the filtrate, neither were any cultures taken from the skin of the face in this instance. This was due to the fact that we had done the same thing so often before, with negative results as regards reproducing the disease, that we did not think it worth while, as nothing was anticipated on this occasion.

SUMMARY

Let us emphasize, in concluding, that this brief recapitulation is not offered as proof that impetigo contagiosa is due to a filterable virus, but rather in the hope that many others might perform this simple experiment with a view to corroborating or refuting this premise at some future date.

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FRACTURES OF THE FACIAL BONES: THEIR TREATMENT*

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THE increased frequency of serious injury of the facial bones, due largely to automobile accidents, has stimulated interest in the treatment of this group of fractures. The tendency is to regard these injuries as lying in the field of general surgery; however, orbit, eye, nose and sinus complications give them a particular interest in our field of practice.

DIAGNOSIS

Fractures of the facial bones may be divided into recent and old bony injuries. Recent fractures often require study in determining their character and extent; old fractures are evidenced largely by the presence of contour defects.

With any injury of consequence to the soft tissues of the face, injury of the bony structure should be suspected. A routine order of inspection and palpation will help to avoid overlooking such damage. The following order is suggested: the orbital rims, the malar attachments and zygoma, the bony arch of the nose, and, last, the jaws, with attention to their mobility and dental occlusion. Extensive soft tissue injury and swelling may interfere with accurate palpation. Emphysema of the soft tissues occasionally is seen, particularly in fractures involving the medial wall of the orbit or the anterior wall of the antrum.

A neurologic survey should be made to include the vision and pupillary reactions, as well as the hearing. Any sensory or motor impairment of the facial area must not be overlooked.

X-rays are essential, and special positions are often required to show the necessary detail for diagnosis. When available, laminagraphic exami-

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Fig. 1a.—Immobilization following nasal fracture. The molded copper splint. Pattern of splint below—14 ounce rolled annealed copper. See also diagram Fig. 1 (c).

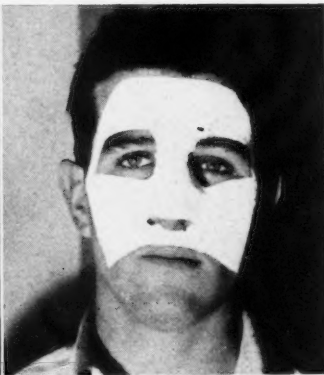


Fig. 1b.—Immobilization following nasal fracture. The plaster splint.

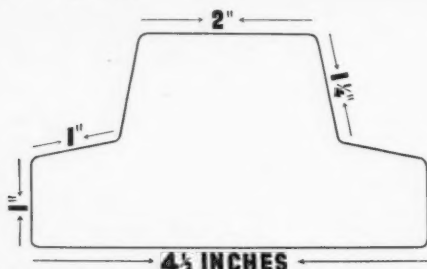


Fig. 1c.—Diagram of copper splint. Dimensions are approximate. May be cut to fit. See also Fig. 1a.

nation, as described by Moore and Cone,¹ may offer advantages in diagnosing fractures of the ethmoid area, and in better outlining temporo-mandibular joint structures.

GENERAL CONSIDERATIONS IN TREATMENT

Severe facial injuries, particularly of the upper one-half of the face, are frequently associated with shock, skull fracture, or intracranial hemorrhage. These more critical complications should receive first consideration in treatment; however, some attention to the facial injury can usually be given at an early date. Fractures of the bony structures of the face, when associated with extensive injury of the overlying soft tissues, should be reduced first, and the soft tissue wound closed afterwards.

With multiple fractures of the face involving the nose, the upper jaw and the malar bones, reduction of the jaw fracture, and restoration of the orbital margins, should be carried out before the nasal deformity is corrected. The nasal arch and the septum depend largely on this part of

the facial framework for their support.

TREATMENT OF SPECIAL REGIONS THE NOSE:

The nasal bones are involved the most frequently in fractures of the facial bones. In the simple depressed fracture of one nasal bone, treatment consists of internal manipulation of the fragment to its normal position, and pack sufficient to keep it there.

In most nasal fractures, the nasal bones, the frontal processes of the maxillae, and the nasal septum are jointly involved in the fracture injury. Depending on the direction of the force applied, the bony arch of the nose may be deviated laterally, or depressed, or a combination of these deformities may result. Varying degrees of comminution of the fracture fragments may be present.

In fractures where the entire bony arch is deviated to the side with overriding of fragments, the fragments must be disengaged and lifted from within with a suitable elevator. After centering the nose by digital manipulation, a copper molded splint, as described by Salinger,² or a plaster splint, should be applied for maintenance of fixation. The splint should be left on for ten days to prevent any tendency to displacement of fragments or spreading of the nasal bridge (Fig. 1).

In severe depressed nasal fractures where there is usually considerable comminution of the nasal bones along with septal fracture, it is necessary not only to elevate the nasal bones,

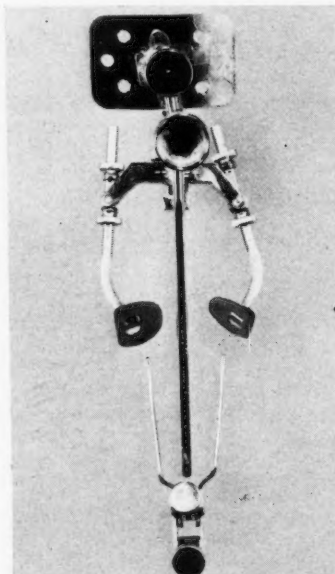


Fig. 2a.—Immobilization following reduction of depressed comminuted nasal fracture.



Fig. 2b.—Details of Straith splint assembly.

but also to provide some form of fixation to hold them in position. In addition to holding the bones forward, lateral pressure must be secured to retain a narrow contour of the nasal bridge. A splint assembly, such as the Straith, combines adequately the necessary mechanical requirements for the treatment of this type of fracture. In using this splint, a plaster head cast is applied, in which is anchored a rod running parallel with the nasal bridge. Two arms attached to this rod pass up into the nasal passages and can be elevated as desired. A second attachment includes two metal pads which can be regulated for any degree of lateral pressure required (Fig. 2). If the septum is fractured, rolled dental wax introduced into the nasal passages assists in its immobilization.

In considering old bony injuries of the nose, a

create room when the nose is replaced to the mid-line. Removal of an associated nasal hump, or shortening of the nasal tip, may be done in the course of the operative procedure (Fig. 3).

In old nasal fractures with a depression of the dorsum, also in bony defects of the forehead and orbital rim, cartilage and bone grafts may be used for contour restoration.

THE MALAR BONE:

The malar bone forms a prominent part of the face, coming next to the nasal bones in frequency of involvement in fractures. As it forms a part of the bony walls of both the orbit and the antrum, fractures of this bone with its lines of extension constitute an important, and often a serious and disfiguring type of fracture. If there is enough displacement, damage to the eye or its appendages may occur. Displacement of the globe with diplopia may result from depression of the orbital floor or from orbital hemorrhage.

If there is no comminution of the fractured malar bone, a stout steel hook, as the Langenbeck hook, introduced under the fragment through a small incision in the skin, may be used to elevate the bone into position. Displacement of the fragment is generally downward and backward, and the elevation is applied in the reverse direction for reduction. Hemorrhage into the antrum from tearing of the vessels of the periosteum often occurs in these fractures. This hemorrhage is absorbed often after a few weeks, and irrigation is unnecessary unless infection occurs.

In a malar fracture with a marked separation at the junction with the zygomatic process of the frontal, Gill's³ method of wiring with heavy silver wire, through drill holes made through the fragments, is effective in maintaining fixation. Stainless steel wire is considered more satisfactory by some surgeons, for its strength and lack of tendency to corrode.

If there is extensive comminution of the fractured malar bone, reduction is accomplished best by opening the antrum through the Caldwell-Luc approach. By application of pressure within the antrum, the fragments usually can be manipulated to their correct position. The antrum is packed firmly and an opening is made under the inferior turbinate for drainage, and the buccal incision is closed. The packing should be left in for ten days or more.

In this latter group of malar fractures, usually in cases not receiving adequate early treatment,



Fig. 3a.—Old nasal fracture. The twisted nose. Before correction.

Fig. 3b.—After correction. Removal of nasal hump, submucous resection of nasal septum and refracture and reposition of nasal bones.

common type is the so-called twisted nose. This type is usually the result of an old, untreated fracture, and shows the nasal tip off the median line with a lateral displacement of the nasal bridge. The septum is deviated with a frequent dislocation of its free border. The treatment is, in brief, a submucous resection of the nasal septum, followed with refracture and reposition of the nasal bones. Except in minor deviations of the bony bridge, it is necessary to excise a triangular piece of bone from the concave side to

the floor of the orbit may be damaged so severely that the eyeball has dropped down several millimeters from lack of support. An autogenous cartilage graft or a refrigerated cartilage isograft, as described by O'Connor,⁴ introduced subperiosteally along the floor of the orbit, may be used as a wedge to elevate the eyeball to its normal position (Fig. 4). Entire correction is not always obtained.

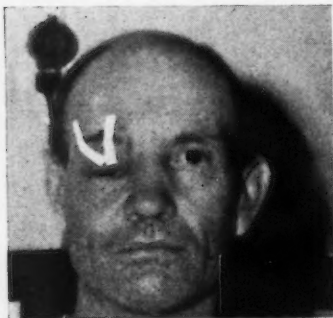


Fig. 4a.—Old orbital fracture. Downward displacement of eyeball from damage to orbital floor.

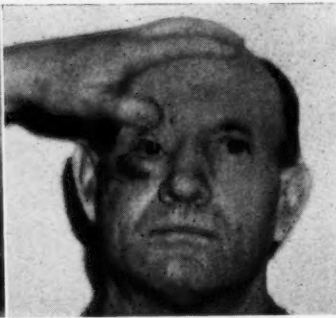


Fig. 4b.—Elevation of eyeball following introduction of cartilage graft in floor of orbit, refrigerated cartilage isograft used.

THE FRONTAL BONE:

The frontal bone, strictly speaking, is a part of the skull and not the face. However, as it forms an important part of the bony wall of the orbit and contains the frontal sinus, the treatment of its fractures may be considered properly in this discussion. In fractures of the anterior wall of the frontal sinus, depressed fragments are elevated and the overlying soft tissues closed. Usually external drainage is not necessary, and any hemorrhage into the sinus will be handled by absorption and drainage through the nasofrontal duct. If the posterior wall of the sinus is fractured, it is necessary to provide external drainage in order to avoid accumulation of discharge under pressure and possible intracranial complications. Occasionally, penetrating wounds of the orbit involve the thin and brittle orbital portion of the bone (Fig. 5).

THE ETHMOID AND SPHENOID:

In fractures involving the ethmoid sinus, emphysema of the orbital tissues is common. Meningitis may occur if the cribriform plate is involved. Drainage of cerebrospinal fluid from the nose comes from the cribriform plate area, and is generally a bad prognostic sign.

Fractures involving the sphenoid sinus are serious, due to their proximity to vital intracranial structures. The treatment of fractures involving both the ethmoid and sphenoid sinuses should be conservative, keeping the nasal passages as free from infection as possible, and advising against forcible blowing of the nose, to prevent emphysema of the surrounding soft tissues.

Sudden loss of vision may occur in fractures through the optic foramen from direct nerve injury or hemorrhage into the sheath of the nerve.

Fracture or displacement of the anterior clinoid process, as suggested by Horner,⁵ may produce optic nerve injury and blindness.

THE MAXILLA

Fractures of the maxilla and mandible are treated best in coöperation with the oral surgeon; however, general principles employed in the treatment of these fractures should be understood by anyone treating facial injuries.

In unilateral fractures of the maxilla, the commonest type is the fracture that extends obliquely or horizontally above the teeth and continues down near the midline of the hard palate. These fractures, in many cases, can be reduced by pushing the fragment back into place, the fixation maintained by wiring the teeth on the sound side of the maxilla to those of the mandible. Soft brass wire, twenty-four gauge, or stainless steel wire, may be used as ligatures in fastening opposing teeth. If several teeth are absent, a heavy, German silver, one-half round arch wire may be fastened to the labial surfaces of the upper and lower teeth. These two heavy wires are then attached together for fixation.

In bilateral fractures of the maxilla, the commonest fracture is the transverse type, as seen in steering-post injuries and guest passenger injuries as described by Straith.⁶ In these cases, the entire upper jaw is pushed backward freeing it from the rest of the skull. The jaw usually sags down posteriorly, so that the upper teeth are posterior to the lower, giving the so-called open bite type of deformity which makes mastication impossible. Reduction and immobilization in these fractures are obtained by means of a head apparatus and a reversed Kingsley splint. This splint consists of a heavy metal arch bar wired to the outside of the teeth. The arms of the splint are fastened to this bar and extend out of the mouth on each side for attachment to a plaster head cast. Straps which can be shortened gradually, or heavy elastic bands, run between the arms of the splint and cast.

With this apparatus, the jaw is reduced by degrees. After several days, when the upper and lower teeth have regained occlusion, the jaws can be wired together until complete union has taken place (Fig. 6).

THE MANDIBLE:

In the great majority of fractures of the mandible, no matter where situated, adequate fixation can be maintained by wiring the teeth of the maxilla to those of the mandible. In edentulous patients, in certain types of mandibular fractures, direct wiring of the bony fragments may be employed. Kazanjian⁷ recommends exposure of the bone ends through the oral cavity as an easier and less traumatizing method than through the

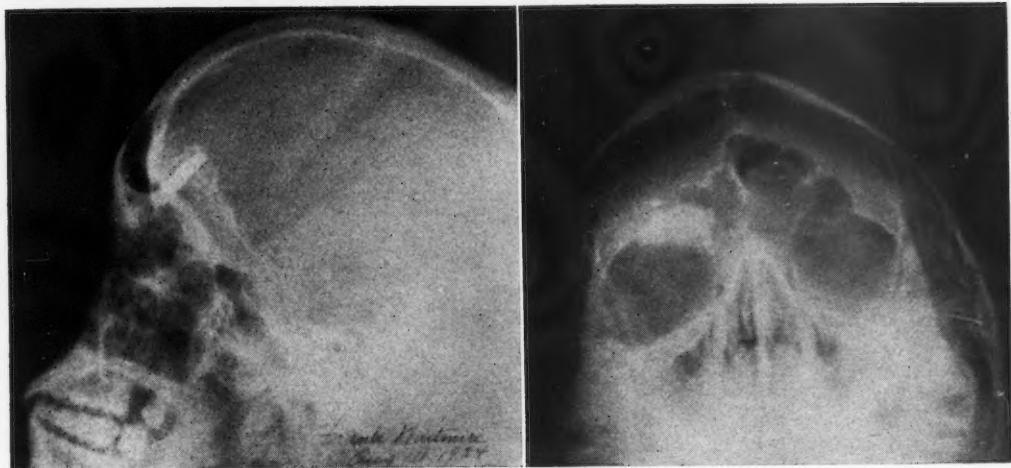


Fig. 5.—Fracture of orbital portion of frontal bone due to penetration of piece of windshield. Uneventful recovery followed removal through brow and orbital approach.

external approach. In fractures behind the third molar tooth, the posterior fragment is pulled upward and forward, and a special method of reduction is required. The following procedure is efficient for reducing the displaced posterior fragment. A head cast is applied in which is incorporated a wire hook that emerges in the mastoid region on the involved side. A wire is passed through the fragment and a rubber band, stretched from this wire to the hook, gradually pulls the posterior fragment back into position.

In fractures of the neck of the condyle, where the head is driven out of the socket medially, an

effort may be made to push the condyle back in the socket; however, any open operative procedure to adjust the fractured ends in position is not advisable.

SUMMARY

In all injuries of the face, fractures of one or more facial bones should be suspected. Early reduction and fixation are imperative. Fractures of the malar bone and zygomatic arch are often serious and disfiguring. The treatment of these fractures must be individualized, depending on the location and degree of displacement of the fragments. For severe depressed fractures of the nose, and for certain bony injuries of both the upper and lower jaw, a head cast and special retaining appliances may be necessary for maintaining fixation. In old fractures of the face, transplants of bone and cartilage may be used in correcting contour defects.

1127 11th Street.

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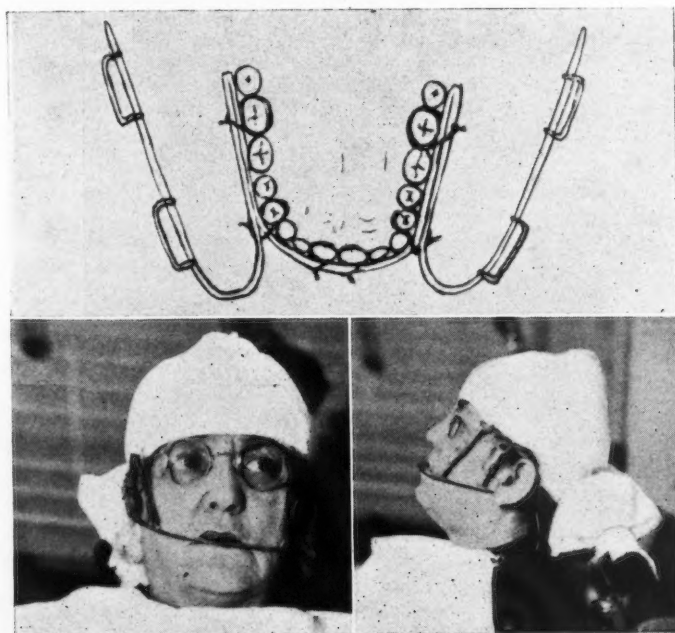


Fig. 6.—Immobilization following bilateral maxillary fracture. Details of reversed Kingsley splint below.

CLINICAL NOTES AND CASE REPORTS

MYXO-SARCOMA OF THE SKIN*

REPORT OF CASE

MERLIN T.-R. MAYNARD, M. D.
San Jose

MUCINOUS degeneration of the skin is unusual, and a true sarcoma of this type springing from the collagen of the corium is apparently extremely rare.

REPORT OF CASE

The patient in this particular instance was a woman of 63, who had a sclerodermatous change in both cheeks of one year's duration. Three weeks prior to being seen, she noticed what seemed to be a small hole in the skin, as she described it, and she picked at it with a needle. A growth appeared shortly afterwards, which developed rapidly. No treatment had been applied except hot applications. A past history was negative of any significant factors relative to the tumor formation in the area of the jaw, except that she had spent a good part of her life on a hay ranch.

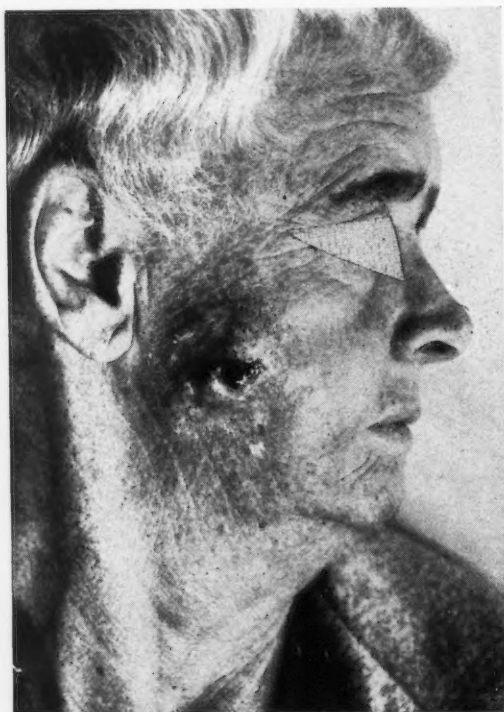


Fig. 1.—Photograph of the patient showing the lesion on the right cheek following the taking of the biopsy.

An examination of the patient showed a rounded, irregular tumor of the center of the right cheek where the

overlying skin was intact but very thin. The surrounding skin was firm, slightly scaly, and whitish in color. The left cheek showed similar skin changes, but no tumor growth. The rounded skin of the tumor felt fluctuant to the touch, and had a slightly bluish and translucent appearance. A biopsy was taken from the surrounding skin, and a large needle inserted into the soft area and

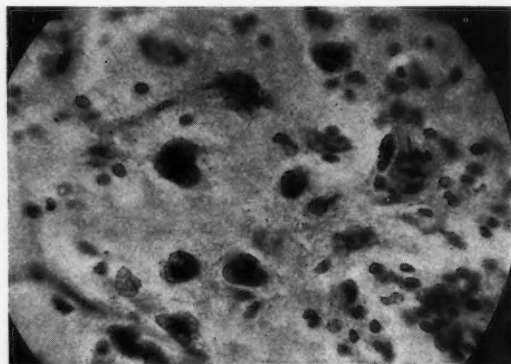


Fig. 2.—Photo-micrograph of the tissue removed at operation showing the myxomatous structure.

a withdrawal of fluid attempted. This failed; but as the needle was withdrawn, a clear mucinous string followed it. A section was then clipped out for a biopsy, following which the contents of the growth partially extruded but did not flow, remaining tissue-like in consistency. A dressing was applied.

The woman returned five days later, at which time the mucoid tissue had increased in quantity and was forcing the wound more widely open. It was decided to start modified Coutard x-ray therapy while awaiting the biopsy sections. The biopsy specimen when received showed the dermatitis of the surrounding area to be scleroderma. The biopsy of the lesion showed a myxo-sarcoma, involving the fibrous tissue of the corium.

Coutard therapy was continued for a total of nine treatments, at which time 1850 r. had been given. During this time the tissue seemed to continue its rapid growth, so that a surgical consultation was arranged and the entire area including the parotid gland and duct was removed. This was done because it was believed by the surgeon to be a mixed tumor of the parotid. The pathologists report follows.

Gross Specimen.—Consists of an oval elliptical-shaped piece of skin, 7 x 5 cms. in size. Centrally, is a slightly elevated dark lesion 2.5 cms. in width and centrally the skin is ulcerated. Upon cut section is an oval, poorly encapsulated nodule, 2.5 x 1.8 cms. soft, semi-mucinous, grayish-white in color. It extends to the underlying fascia, but apparently does not invade it.

Consists of fibro-areolar tissue containing two small grayish-white, soft lymph nodes, measuring up to 0.8 cm. in width.

Histological Examination.—One section is taken so as to show tumor which is situated between overlying skin on one side and Stenson's duct on the other. The tumor is partially separated from the latter by a narrow zone of fibrous tissue; apparently there is no relationship. The tumor is composed of rather widely-spaced, stellate and spindle-shaped tumor cells; they are separated from one another by considerable edema, and in places a homogeneous substance suggestive of mucin. Some of the nuclei are large, balloon-shaped, finely granular, and deeply staining. These changes, apparently, are secondary to and in response to irradiation. No definite mitotic figures

* Read before the Section on Dermatology and Syphilology, at the Seventieth Annual Session of the California Medical Association, Del Monte, May 5-8, 1941.

can be found at the present time. In places, the stroma contains thin-walled, dilated capillaries, and is infiltrated by occasional tiny groups of lymphocytes. It is my opinion that this neoplasm did not have its origin in the salivary glandular system, but rather is a tumor which has had its origin from fibro-areolar tissue, arising possibly from either the corium or the subcutaneous tissue.

The section through a lymph node, embedded in adjacent fibrous tissue, shows a moderate lymphoid hyperplasia but no tumor. The diagnosis is: Sarcoma, Skin, Parotid region, Myxomatous.

COMMENT

The origin was undoubtedly mesodermal, springing from the collagenous tissue of the corium in an area of scleroderma. Its first appearance while very small in the skin surface is reasonable evidence of an origin in the more superficial collagenous layers.

241 E. Santa Clara Street.

TROPICAL RAT MITE INFESTATION

HIRAM D. NEWTON, M.D.

San Diego

A MOST interesting, and to me unusual, situation has recently come to my attention, which I consider worth the attention of all doctors in the southwest.

REPORT OF CASE

Mrs. C. A. J., age 39, consulted me in my office on April 21, 1942, complaining of a pruritic dermatitis of some weeks' duration. On inspection, I found various scattered pruritic papules suggestive of flea bites. She insisted that they were not flea bites, but that certain minute creatures crawled upon her, and that when they stopped, they bit her.

Fearing a case of acarophobia, I asked that she obtain some of these creatures for my observation. On the next day she appeared with a vial of small objects which, with a magnifying glass, appeared to be the size of the ordinary crab-louse (pediculi pubis). However, they were more elongated and slightly smaller than this creature. Moreover, the bites were more about the waist, legs and trunk, than about the pubis. No lice or ova were visible on the pubic areas.

The specimens were given to Dr. R. D. Harwood, Entomologist of the San Diego State College, and he submitted the following report:

"Although they were all immature, the mites from Mrs. J. are unquestionably the tropical rat flea (*Liponyssus bacoti*). This mite has only recently been introduced, but has become widespread. Both nymphs and adults have the annoying habit of leaving their hosts and traveling about when they will attack man if given the opportunity. If food, i.e., rats and humans can be withheld for two weeks, the mites will perish. If the rats are exterminated they may be especially annoying to man for a little while as they are out for blood. It may be necessary to spray floors, etc., if bad. I hope that this gives you the desired information."

COMMENT

Further inquiry developed the following facts: There were rats in the house. The husband and infant child had no apparent bites and search disclosed no mites on them.

Destruction of the rats, abundant use of flea

powder about the floors, and the use of pyrethrum ointment on the patient, eventually controlled the situation.

Interviews with persons engaged in rat extermination disclose that they are familiar with this mite, having at times resorted to cyanide fumigation of large buildings to control the infestation.

SUMMARY

Lesions having the characteristics of urticaria of external origin (bites), may be caused by the tropical rat flea.

The question arises as to possible danger of this pest, acting as a vector for some rat-borne disease.

1203 Bank of America Bldg.

Improved Design May Make Cars and Planes Safer

A mechanical analysis of seven cases in which human beings survived free falls from heights of fifty to one hundred and fifty feet leads Hugh DeHaven, of the Department of Physiology, Cornell University Medical College, New York, to declare in the current issue of *War Medicine* that the fact that these survivals occurred when the necessary factors were accidentally contributed indicates the possibilities of increasing survivals and reducing injuries from automobile and airplane accidents by structural alterations in design that might be introduced. *War Medicine* is published by the American Medical Association in cooperation with the Division of Medical Sciences of the National Research Council.

"The human body," he concludes, "can tolerate and expend a force of two hundred times the force of gravity for brief intervals.

"It is reasonable to assume that structural provisions to reduce impact and distribute pressure can enhance survival and modify injury within wide limits in aircraft and automobile accidents."

Explaining the purpose of his paper, Mr. DeHaven says: "During the interval of velocity change in aircraft and automobile accidents many typical crash injuries are caused by structures and objects which can be altered in placement or design so as to modify the large number of severe and constantly recurring patterns of injury in these accidents. In order conscientiously to approach some of the engineering problems encountered in reduction of the potential injury hazards of windshield structures, seats, instrument panels, safety belts, etc., it was necessary to have some understanding of the limits of mechanical strength of the human body.

"The objective in studying the physiologic results of rapid deceleration in the following instances of extraordinary survival—after free fall and impact with relatively solid structures—was to establish a working knowledge of the force and tolerance limits of the body. On the basis of these data certain engineering improvements can be considered for aircraft and automotive design.

"Loss of pilots through injury due to the increased landing speeds of military planes has become more and more frequent; this loss and the ever present toll by accident in the automotive field are matters of grave national concern. Injuries in these fields are mechanical results stemming from localized pressures induced by force and applied to the body through the medium of structure. It is an axiom in the mechanical arts that modification of cause will change results, but the nature and the degree of structural alteration to modify injury to human beings effectively depend on the reactions of

the body to abrupt pressure and its distribution. The strength of human anatomic structure and its tolerance of pressure increase are centrally important elements in any proposed increase of safety factors through engineering effort.

"Obviously, if the body could tolerate pressure within only narrow limits, few improvements would be worth consideration, since the force and resulting pressure of a severe crash are at best formidable. Evidence, on the other hand, that the body can tolerate the force of an extreme crash—without injury—would indicate that (1) extreme force within limits can be harmless to the body; (2) structural environment is the dominant cause of injury; (3) mechanical structure, at present responsible for recurring injury, can be altered to eliminate or greatly modify many causes and results of mechanical injury, and (4) the greater the evidence of body tolerance of force and pressure, the wider the possibility for considering engineering improvements. . . ."

Mr. DeHaven points out that evidence of the extreme limits at which the body can tolerate force cannot be obtained in laboratory tests nor gained satisfactorily from most aircraft and automobile accidents. Estimation of the exact speed of a crash is difficult under most conditions, as is the determination of other essential factors.

"With the thought of overcoming many of these difficulties," Mr. DeHaven says, "and in order to observe physiologic reactions to force under more simple conditions, a study of cases of free fall was undertaken. In several of the cases outlined here speed of fall, striking position, deceleration and relation of resultant injuries to structure [object struck by the falling body] could be determined with great precision. . . ."

"The material is presented with the hope that additional instances of force survival may be closely observed and recorded in order to further an understanding of the strength of the body and the type of structure, position, etc., contributing to force survival.

"It is, of course, obvious that speed, or height of fall, is not in itself injurious. Also a moderate change of velocity, such as occurs after a ten story fall into a fire net or onto an awning need not result in injury, but a high rate of change of velocity, such as occurs after a ten story fall onto concrete, is another matter. Between these two extremes lies important evidence of physiologic force tolerance. . . ."

He explains that in using the expression "free fall" he means a fall free of any obstruction other than that encountered at its termination. He cites the following 7 cases in which the victim of the fall survived.

A woman aged 42, 5 feet 2 inches tall and weighing 125 pounds, jumped from a sixth floor and fell 55 feet onto fairly well packed earth in a garden plot, landing on the left side and back. The deceleration distance, i.e., the distance traveled by the body from the time its downward movement began to be reduced by contact with an object until it came to a complete halt, was about 4 inches as indicated by marks of the body in the earth. At the time the body struck the ground it was traveling at a velocity of 54 feet per second or 37 miles per hour. There was no evidence of material injuries or shock and no loss of consciousness. The superintendent of the building reached the victim immediately after she struck the ground. She raised herself on her left elbow and remarked: "Six stories and not hurt."

In case 2, a woman aged 27, 5 feet 3 inches tall and weighing 120 pounds jumped from a seventh floor window and fell 66 feet onto a wooden roof, landing head first with progressive contact of the shoulders and the back. This woman broke through a roof of $\frac{3}{4}$ inch pine boards which were supported on 6 by 2 inch beams 16 inches apart and landed lightly on the ceiling below.

Velocity at contact was 40 miles per hour. A hole approximately 16 by 16.5 inches was sheared in the roof by the force of the fall. Three of the 6 by 2 inch beams were broken. The only head injury was a lacerated scalp. There were abrasions over a portion of the spine and a fracture of one of the vertebrae. Commenting on this case, Mr. DeHaven says that "the fall was first known to have occurred when the woman appeared at an attic door and asked for assistance. She sat up in bed at the hospital later in the day. It is difficult to reconcile the structural damage to the beams with the absence of greater bodily injury in this case."

In the third case a woman aged 36, 5 feet 4 inches tall and weighing an estimated 115 pounds jumped from an eighth floor and fell 72 feet onto a fence, face downward. Velocity at contact was 44 miles per hour. There was no evidence of material injury. She landed "jackknifed" over the fence, tumbled to the ground, got up and walked to a nearby clinic for first aid.

A rapid, uneventful recovery was made by another woman after she had jumped from a ninth floor, falling 74 feet onto an iron bar, metal screens, a skylight of wired glass and a metal lath ceiling. She landed face downward, prone. The velocity at contact was 45 miles per hour, at which speed she struck an iron bar with her chest, making a bend 13 inches deep in the bar. She had minor injuries to the head from the screen wires and fractures of the fourth, fifth and sixth rib on the right side.

A fractured rib on the right side and a fractured right wrist were all the injuries suffered by another woman who jumped from a tenth story window, falling 93 feet into a garden where the earth had been freshly turned. Velocity at contact was 50 miles per hour. She landed on her back. She was released from the hospital twelve days later.

A man, aged 43, fell 108 feet from a tenth story window and landed on the hood and fenders of an automobile, face downward. Velocity at contact was 52 miles per hour. He suffered a depressed frontal skull fracture but the immediate cause of this injury was not determined because he had bounced from the car to the pavement. He survived and is now in good health.

In case 7 a man jumped from the roof of a fourteen story building, falling 146 feet onto the top and rear of the deck of a coupe and landing partly on his back. Velocity at contact was 59 miles per hour. He fractured his left elbow, his left arm, his left shoulder blade, the seventh and eighth dorsal vertebra and his hip. He was conscious and there was evidence of some internal injury. There were no head or chest injuries. He returned to work two months later.

MEDICAL EPONYM

Murphy Maneuver

On December 18, 1902, Dr. John Benjamin Murphy (1857-1916) described the following diagnostic maneuver, to which his name is frequently given, before the New York Academy of Medicine. His paper appeared in *Medical News* (82:825-833, 1903), under the title, "The Diagnosis of Gall-Stones."

" . . . The most characteristic and constant sign of gall-bladder hypersensitiveness is the inability of the patient to take a full, deep inspiration, when the physician's fingers are hooked up deep beneath the right costal arch below the hepatic margin. The diaphragm forces the liver down until the sensitive gall-bladder reaches the examining fingers, when the inspiration suddenly ceases as though it had been shut off. I have never found this sign absent in a calculous or infectious case of gall-bladder, or duct disease."—R. W. B., in *New England Journal of Medicine*.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

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OFFICIAL BUSINESS

Abstract of Minutes: California Medical Association Executive Committee*

Minutes of the One Hundred Seventy-Seventh Meeting of the Executive Committee of the California Medical Association, Held in San Francisco, Saturday, July 11, 1942

The meeting was held in Room 214 of the Sir Francis Drake Hotel, in San Francisco, on Saturday, July 11, 1942, at 12:30 noon, Chairman Henry S. Rogers, presiding.

(a) Minutes:

Minutes of the Organization Meeting of the Executive Committee, held at Del Monte, on Thursday, May 7, 1942, were approved.

(b) Discussion of Basic Science Initiative:

It was stated that the Basic Science Initiative would be Number Three (3) on the November ballot.

Discussion was had on who should sign the argument in favor of a Basic Science Initiative that would be sent by the State Authorities to voters prior to the November election. It was agreed that an invitation be extended to Doctors Ray Lyman Wilbur of Stanford University, President Tully Knowles of the College of the Pacific, and President Rufus von KleinSmid of the University of Southern California.

(c) Steering Committee:

After other discussion, it was agreed that a Steering Committee to supervise the campaign, consisting of Doctors John W. Cline of San Francisco, Frank R. Makinson of Oakland, and John W. Crossan of Los Angeles, be appointed.

(d) Report by Mr. Read:

Mr. Ben Read, of the California Public Health League, stated that a total of 230,179 valid signatures, had been submitted to the Secretary of State.

It had been necessary, at considerable additional expense, to continue securing signatures after the minimum 212,000 had been secured.

(e) Financial Report by Mr. Hunton:

Mr. Hunton reported on the expenses incurred to date.

(f) Program for Publicity and Educational Campaign:

Discussion was had on publicity work, and certain activities approved.

(g) Adjournment.

HENRY S. ROGERS, *Chairman*,
GEORGE H. KRESS, *Secretary*.

The threads of all the Sciences are woven into the fabric of the clinic.

The three L's of longevity: Low weight, low pulse rate and low blood pressure.

Diagnosis by intuition is a rapid method of arriving at a wrong conclusion.—J. C. da Costa.

* Full minutes of the Executive Committee meeting have been mailed to all councillors, and copies are also available for inspection in the central office of the Association.

† For complete roster of officers, see advertising pages 2, 4, and 6.

CALIFORNIA COMMITTEE ON PARTICIPATION OF THE MEDICAL PROFESSION IN THE WAR EFFORT†

Recent Visit of Colonel Sam F. Seeley to California

(COPY)

CALIFORNIA MEDICAL ASSOCIATION

450 Sutter, San Francisco

July 29, 1942.

To the Members of the California Medical Association:
Dear Doctors:

California will be honored from August 3 to 10 by the appearance of Colonel Sam F. Seeley, Army Medical Corps, Executive Officer of Procurement and Assignment Service, at a limited number of meetings in our state.

Colonel Seeley will bring to us the latest information on Procurement and Assignment Service and will have the answers to any questions you may have on this service and on Army Medical Corps needs and requirements.

The following is the schedule of meetings which have been arranged for Colonel Seeley:

Monday, August 3, 1942, 8 p.m., Colonial Ball Room, Hotel St. Francis, San Francisco.

Tuesday, August 4, 1942, 8 p.m., Hotel Oakland, Oakland.

Wednesday, August 5, 1942, 8 p.m., Sacramento Senior High School Auditorium, 34th Street at Broadway, Sacramento.

Thursday, August 6, 1942, 8 p.m., Fresno Memorial Auditorium, Fresno.

Friday, August 7, 1942, 8 p.m., Los Angeles County Medical Association Auditorium, 1925 Wilshire Boulevard, Los Angeles.

Saturday, August 8, 1942, 7:30 p.m., Mercy Hospital, Nurses Auditorium, San Diego.

IF you are under 45 years of age—

IF you contemplate entering Army service—

IF you are available for a change of location—

IF you have any questions on the Army or on P. & A.—

The whole program of Procurement and Assignment Service will be covered, and questions asked from the floor will be answered. Your own immediate individual future and the whole future of medical practice is closely bound up in the program of Procurement and Assignment Service, and the success or failure of this program. The war effort of the medical profession is entirely channelled through Procurement and Assignment Service.

These meetings are for your benefit and you should let nothing prevent your attendance at one of them.

Fraternally yours,

WILLIAM R. MOLONY, SR.,

President.

† Harold A. Fletcher, M.D., 490 Post Street, San Francisco, is the State chairman on Procurement and Assignment Service, with supervision of all counties north of the fourteen southern counties.

Associate California chairman for the fourteen southern counties is Edward M. Pallette, M.D., 1930 Wilshire Boulevard, Los Angeles.

Roster of county chairmen on Medical Preparedness appeared in CALIFORNIA AND WESTERN MEDICINE, AUGUST, 1940, on page 86.

U. S. Army Medical Corps Recruiting Boards are in charge of Major F. F. South, MC, at room 1231, 450 Sutter St., San Francisco (EXbrook 0450), and Major C. A. Darnell, 1930 Wilshire Boulevard, Los Angeles (FEederal 1953).

For roster of Procurement Service Committees of County Medical Societies, see July issue of CALIFORNIA AND WESTERN MEDICINE, on pages 93-94.

C.M.A. MEMBERS IN MILITARY SERVICE**

Marin County Medical Society

Members of the Marin County Medical Society on Active Duty with the Army and Navy.

(Report, as of July 15, 1942. Total Number, 11.)

Name	Rank (if known)	Service (if known)
Cannon, Frank.....		Navy
Cleave, David.....		Army
Conroy, B. J.....		Public Health Service
Goddard, A. B.....		Army
Goddard, W. P.....		Navy
Hammond, H.....		Army
Larson, Leonard.....		Army
Reynolds, W. J.....		Army
Schwarz, Al.....		Army
Stanley, L. L.....		Navy
Thusen, A.....		Navy

Medical Library Association War Service

Recent Activities of Library of Los Angeles County Medical Association: Contacts with California Army Camps

The National Medical Library Association, at the annual meeting held in New Orleans in May, 1942, took action on the Defense Proposition as follows:

"The Medical Libraries of the United States, through their organization in the Medical Library Association, are desirous of extending the use of their facilities and their trained personnel to the medical services of the armed forces of the United States. Our two hundred and fifty organized medical libraries located in all parts of the country are equipped to give library service to physicians now on duty in camps, hospitals and training stations."

The service will consist of the complete use of material within the library when it is possible for officers to go there. In addition a loan service will be instituted, of such material as the library is able to lend, package libraries of recent reprints, unbound periodicals, etc.

The country was divided into ten regional districts. A committee was named with a director for each district. Mrs. Mary E. Irish of the Los Angeles County Medical Association Library was named for the South Pacific States, California, with its great number of camps, etc., Nevada, and Utah. Miss Mary Louise Marshall, President of the Medical Library Association, will head the Committee, and Colonel Harold W. Jones, Librarian of the Army Medical Library, will act as advisor. All medical librarians in the district will act in coöperation with the director, and requests for material will be sent to the nearest library. An officer in the camp or a librarian will be responsible for the return of the material to insure against loss by removal of troops.

One of the greatest needs of this service, aside from the writing of papers, is the fact—as expressed by Dr. Kress in talking this over with him—that many doctors will be entirely out of touch with the advancement of medicine by being placed where there are no library facilities, and entirely at a loss when they are ready to take up their work when they return from service.

Military camps and hospitals that wish to establish medical libraries of their own may call on established medical libraries for duplicate material.

The library service is not only extended to doctors

** County Society Secretaries are requested to submit the lists for their respective counties.

whose homes are in the State, but to any physician who is located in camps included in the district. Doctors from California will receive the service from the libraries in the district nearest to which they are located.

* * *

The exhibit of the Library of the Los Angeles County Medical Association at the annual meeting of the California Medical Association at Del Monte, May, 1942, presented a map of California showing the location of military camps in the State, and a statement of the service that the library will give to the doctors of California stationed in the camps.

Members of the Medical Corps of Army and Navy are cordially invited to feel free to avail themselves of the facilities of the Library of the Los Angeles County Medical Association (address: 634 South Westlake Ave., Los Angeles. Telephone, Fitzroy 7694. Librarian, Mrs. Mary E. Irish).

Procedure for Physicians Called by Local Draft Boards

A recent issue of the *War Bulletin* of the Ohio State Medical Association gave the following information. (Where indicated, California references have been inserted.)

What should a doctor do if he is placed in Class 1-A by his local draft board and told that he must enter the Army, even though the Procurement and Assignment Service may have advised the board that the physician is "essential" to the community?

First, it should be understood that *Selective Service is the final judge and authority, having complete compulsory powers. Procurement and Assignment is only "advisory,"* without compulsory powers and its advice need not be accepted by Selective Service, although in most instances Selective Service has been following the advice of Procurement and Assignment.

Second, when a physician is confronted with such an order from his local draft board, he should immediately complete an application for a commission, and ask for a final type physical examination for those applying for a commission. The Ninth Corps Area Surgeon's Office will accept his application and provide him with a physical examination. Or, the same service will be provided by either of the two Medical Officer Recruiting Boards, the addresses of which are given in the footnotes to the caption of this department of CALIFORNIA AND WESTERN MEDICINE. Information as to when the recruiting boards can be seen may be obtained from the California Procurement and Assignment Committees.*

Third, after such doctor has filed an application for a commission, he should get from the Corps Area Surgeon's Office or the Recruiting Board Officer, some statement to the effect that he has done so and he should show this to this local draft board.

Fourth, acting on the advice of State Selective Service Headquarters, the local draft board is expected to grant such physician limited deferment until he receives his commission. After receiving his commission, the physician, obviously, is no longer under the jurisdiction of Selective Service and he will enter the service as a commissioned medical officer. If, being declared available by his local Selective Service Board and the Procurement and Assignment Service, a physician declines to apply for a commission, or refuses to accept a commission when offered, he is subject to the control of the Selective Service Board and there is nothing the Procurement and Assignment Service can do about it.

* For addresses, see footnote on previous page.

State Civilian Defense Medical Officials Commissioned in U. S. Public Health Service

To facilitate the emergency medical and hospital program now being developed by the Medical Division of the Office of Civilian Defense and the U. S. Public Health Service, physicians who are State and deputy State chiefs of Emergency Medical Service in most of the coastal States have now been commissioned in the Public Health Service Reserve so that they may exercise both State and Federal responsibilities. . . .

These officers will have as their first duty the stimulation and guidance of local chiefs of Emergency Medical Service in the organization of local casualty receiving hospital and field casualty services. In addition to these functions, they will serve as responsible agents of the States and of the Medical Division of the Office of Civilian Defense and of the Public Health Service for the organization of emergency base hospital facilities and personnel.

In collaboration with State hospital officers, who are now being appointed in coastal States, the full-time Emergency Medical Service chief and deputy chiefs will plan the number, size, location, staff and equipment of Emergency Base Hospitals. Another duty of these officials will be to determine, in collaboration with the local military and the State evacuation authorities, the lines of evacuation and means of transport of civilian casualties and other hospitalized persons from local casualty receiving hospitals to Emergency Base Hospitals. In addition, these officers will review and certify bills to be submitted to the Public Health Service for payment for the hospital care of civilian casualties.

As of July 1, the following have been commissioned in the active reserve of the Public Health Service as State or deputy State chiefs of Emergency Medical Service to carry out this program:

For California: Dr. Charles F. Sebastian.

Proposed Salary Increase for Flight Surgeons

Additional Pay for Flight Surgeons.—Under existing law regular flying officers are entitled to extra compensation at the rate of 50 per cent of their regular pay. Flight surgeons, however, are restricted to payment at the rate of \$720 per annum as extra pay for flight. Under a provision contained in the Military Establishment appropriation bill for 1943, H.R. 7280, flight surgeons will be given the same extra pay as are regular flying officers, namely, extra compensation at the rate of 50 per cent of their regular pay. In recommending this change in the law, the House Committee on Appropriations, said: . . .

"Mr. Powers.—Colonel Moore, the chairman made a statement a few moments ago which impressed me very, very much, and I want to repeat it for the record at this point, quoting the chairman:

I might say that I am one of those who believe that you cannot buy patriotism, nor can we adequately pay for it. But we can help tremendously in these ways to promote the morale and make things somewhat more decent for those who must do the actual flying.

"From the information you have given us, that you have already lost five in action, that six are unreported, either dead or captured, and that you are evacuating. God knows how many critically wounded men by air, I think it might be well for all of us, when we mark up the bill, to give the subject of flight pay even more serious consideration that we have given it in the past. Your information has certainly been most interesting and most enlightening. Thank you." . . .

On Medical Needs of New York

The Public Relations Bureau of the Medical Society of the State of New York in a recent bulletin in its "Medical News" had the following to say concerning New York's need for physicians, as interpreted by the Medical Preparedness Committee of the State Medical Society:

Dr. L. H. Bauer, chairman of the Medical Preparedness Committee, stated that the number of physicians essential to any community depends to a certain extent on local conditions. No official national standard has ever been set up, and for this reason the New York State Medical Society has recommended to county societies a working basis for determining this factor.

"During the current emergency," said Dr. Bauer, "one general practitioner is essential for each 1500 population. This number will vary with the density of the population. In rural communities where there are long distances to be traveled the proportion will have to be one to less than 1500. In densely populated communities it might be extended to a little more than one in 1500. Besides these general practitioners there are certain specialists which will be required. The number and character of these specialists will depend on local conditions. For example, in an industrial community more surgeons will be required than in a strictly rural community. The number of specialists necessary for any given community will have to be determined in that community.

"In order to operate efficiently, hospitals must have minimum staffs. Also, certain physicians will be necessary for maintenance of the department of health, the medical examiner's office, and other public services.

"Certain physicians may hold key positions in civilian defense but so far as possible these should be drawn from the group not eligible for military service.

"As a general rule it is felt that no physician should be marked essential in the community who is 37 years of age or under. There will be occasional exceptions to this rule but they should be few. Physicians considered essential to the community should be from the group 45 years of age and over, and from the women physicians. In case the number in these groups is inadequate for the locality's need, temporary deferment should be asked from among the group between 37 and 45. This group should be re-assessed every six months. A number of the group 37 and under will be physically disqualified and will, therefore, be available to the community and thus release a certain number of the group between 37 and 45 for service. Hence the necessity of re-assessment of this group every six months.

"Hospitals should be asked for a list of those whom they consider essential but they should be advised of these basic recommendations and asked to keep their essential lists within these limits. Many hospitals can call on their consulting and retired staffs for service during the emergency, thereby releasing some of the attending staff. Certain hospital services can also be combined for the period of the war."

Chiropody Officers in the Army Medical Corps

Senate Bill 2597, introduced June 15, by Senator Hughes, of Delaware, for Senator Reynolds, of North Carolina, a bill to provide for the appointment of chiropody officers of the United States Army. Pending in the Senate Committee on Military Affairs.

Comment.—This bill provides that the Surgeon General of the Army shall appoint qualified officers in such numbers as will provide at least one chiropodist for each base hospital and training camp. Such officers will be commissioned as members of the Medical Corps of the United States Army in such grades as the Surgeon General deems advisable. A candidate must be a citizen of the United States, of good moral character, licensed to

practice chiropody in a State or in the District of Columbia, and must have been actively engaged in the practice of his profession for two years or more. The Secretary of War is directed to constitute examining and review boards, to pass on the qualifications of men eligible for such appointments. The bill also provides for the establishments "within the Medical Corps provision for chiropody (podiatry) Reserve Officers in accordance with the provisions of the National Defense Act and the amendments thereto."

Apropos of the above the following facts received from the British Board of Registration of Medical Auxiliaries may be of interest.

Two Hundred Chiropodists Are Corporals Looking After British Army's Feet

Britain is taking special care in this war of the feet on which her troops will join in the march to victory. Corns, bunions, ingrowing toe-nails and other foot troubles, already much less prevalent than in the last war owing to mechanized transport, are now to be altogether banished.

Already over 200 qualified chiropodists ranking as corporals have been appointed to military centers, and 40 women, with another 60 on the way, have been given similar appointments in the Auxiliary Territorial Service.

Special mobile units and chiropody traveling outfits are now in use to make sure that every man in the Army needing expert treatment gets it, however remote his station.

The second of the mobile units to go into service is an adapted 10 cwt. Ford van fitted with patient's chair, operating stool, trolley dressing table, electric nail drill and sterilizer and a cabinet of medicaments, instruments and so on.

The traveling outfits, twelve of which have already been made, are for the R.A.M.C. chiropodist corporal at military centers. Equipped with one of the cases, about the size of a portable gramophone, he can easily carry all his instruments, medicaments and towels.

California Procurement and Assignment Service: Recent Meetings

Col. Sam F. Seeley Explains Procurement Objectives

Recruiting of medical officers for the Army, Navy and Air Force was given added impetus early this month when Lt. Col. Sam F. Seeley, executive officer of Procurement and Assignment Service, made a ten-day tour of California. Colonel Seeley appeared as guest speaker at mass meetings in San Francisco, Oakland, Sacramento, Fresno, Los Angeles and San Diego, and in each city was greeted by a large attendance.

Stressing the need of the Army medical corps for a large number of officers, Colonel Seeley discussed at these meetings the development of Procurement and Assignment Service as a voluntary agency of the Government, concerned with the orderly recruitment of medical officers and the maintenance of adequate civilian and industrial medical resources. As to present Army needs, he showed that every able-bodied physician under 37 years of age was slated to be in Army uniform within the coming 12 months.

California has been slow in meeting its quota of Army medical officers, Colonel Seeley told his listeners, but now is coming up to par. His own prediction was that California would meet its quota on the basis of today's recruitment figures.

Accompanying Colonel Seeley on his tour of the state were Dr. Harold A. Fletcher, California chairman for physicians of Procurement and Assignment Service; Dr. Edward M. Pallette, California vice-chairman; Major F. Floyd South, Army recruiting board head in San Francisco; Lt. Cmdr. Leo L. Stanley, Navy recruiting head in San Francisco; Major C. A. Darnell, Army recruiting board head in Los Angeles, and Capt. J. B. Beare, Air Corps surgeon attached to the San Francisco Army recruiting board.

Military Clippings.—Some news items of a military nature from the daily press follow:

Service Need of Doctors Told

Enlistment Program to Be Outlined By Colonel

Forty-two thousand doctors, dentists and veterinarians must be serving with the armed forces by the end of this year, Col. Sam F. Seeley, executive officer of the Procurement and Assignment Service in Washington, D. C., declared here yesterday.

Colonel Seeley, who is in San Francisco for two days to outline and explain an enlistment program for California doctors, pointed out that at no time in history had there been such severe demands made upon the medical profession.

"Before the end of the war we expect every doctor under 45 years of age in the United States to be in a uniform," he said.

Not only must his office see to it that the armed services have enough doctors, but it must make sure of an even distribution of physicians throughout the country to meet the needs of the civilian and industrial populations, the Colonel noted.

"It will be wise for the doctors to enlist now," he declared, "since no civil practice can possibly prepare a doctor for the problems he will meet in active service. It takes experience to be a military doctor."

Colonel Seeley, guest of honor at the Bohemian Club yesterday noon, met with members of the Ninth Corps Procurement and Assignment Service at the Sir Francis Drake yesterday afternoon, to plan a five month enlistment program, and last night addressed a mass meeting of doctors and dentists at the St. Francis Hotel.

He will leave tonight after addressing East Bay doctors in Oakland for an eight day tour of the State. Accompanying him will be Dr. Harold A. Fletcher, State chairman for physicians of the Procurement and Assignment Service.—San Francisco *Examiner*, August 4.

* * *

Army Wants All Doctors Under 37

All physically fit physicians and surgeons in the United States under the age of 37 will be serving as officers with the armed services before the end of the war—and much sooner than that—if the hopes of the Procurement and Assignment Service are fulfilled.

This was the message brought to nearly 1000 Bay Area physicians, dentists and veterinarians last night by Colonel Sam F. Seeley, executive officer of the service, in a talk at the Hotel St. Francis.

California, which already has contributed some 1800 physicians to the armed forces, has a quota of 1786 more by the end of the year, Colonel Seeley declared.

The Colonel charged a lack of response to appeals for volunteers. Despite early indications that 50 per cent of 159,000 doctors would apply for commissions, only 43 commissions had been granted by January 1 and only 3600 by May 1.

There are 37,000 physicians under the age of 37—an adequate number to fill the probable needs of the Army and Navy, Colonel Seeley said.

Every effort is being made, however, to maintain an even balance of medical men to take care of civilian and industrial needs at home, he explained.

During peace time there was one physician on the average for every 775 persons, but the wartime percentage will be decreased to one in every 1500, Colonel Seeley said.—San Francisco *Chronicle*, August 4.

* * *

Recruiting of Doctors for Army Speeded Up

Washington, July 16.—(INS.)—In an effort to obtain 20,000 additional doctors for the nation's expanding army by the end of this year, the war department today increased the number of medical officer recruiting boards in five states.

Two additional boards each have been authorized in New York, Pennsylvania and California, and one each in Massachusetts, Ohio and Illinois. One board is functioning in each of the other states.

Officials said that commanders of the army corp areas affected will select personnel of the new boards and provide quarters.—Fresno *Bee*, July 16.

* * *

National Health

Army's Need for Doctors Causes Shortage at Home

New York, June 20. (Wide World.)—The Army is asking for three to nine times more doctors per thousand soldiers than America's civilian population has.

The rate is six-and-one-half physicians a thousand soldiers, compared with three for favored New York city and two-thirds of a doctor per thousand and in some rural areas.

The assurances face mothers, fathers and the public:
1—The best medical care in history for our soldiers.
2—Medical shortage at home which may be serious in places.

Our Army had about 1200 doctors before 1940, has about 15,000 today with 16,000 more entering service as rapidly as the careful induction systems can take them. The Navy accounts for an additional 10,000 physicians in service.

Civilian Problems

The estimates are from 58,000 to 60,000 doctors in military service in a couple of years. That is one-third of all the physicians in the Nation, including those retired or superannuated. More critical—at home but not for the soldiers—that number is three-fourths of all our doctors of 45 or under.

There is talk of reducing the Army rate to five and one-half doctors per thousand soldiers, without any drop at all in medical care, the saving all being made by dropping medical red tape. Under the military system, clerical and paper work has taken much of the doctor's time. That time is asserted to be equivalent to one doctor per thousand men. Medical corps clerks, who are not physicians, could be used.

The log jam for civilian medical care is immense. Leaders of the American Medical Association started more than two years ago preparing for possible war. They cleared the way for the Army and Navy. But, as in the case of the automobile and other great industries, the global war hit the medical profession with problems the likes of which never existed in the United States since pioneer days.

Typical logs in the jam are industrial defense areas. The Public Health Service is studying the needs of about 100 of these right now.

Samples include a community of 35,000 persons which was served by 28 physicians. That community is now 70,000 and the number of doctors is 15. The best are in service.

Crisis at Hand

The outlook is not black. But medically speaking a crisis is at hand. Flu, for example, is expected to return this year. The doctors are figuring how to beat this or other epidemics and the race is tight.

There are almost certainly doctors enough, even with one-third lost to military service. Sweden, for example, with a fine health record, has only one physician per thousand population. America's civilian population will have almost that many even with the maximum loss of physicians now envisioned.

The problems are how to spread the doctors, how to pay the bills. The solution may go far to fix in the post-war peace the rôle the Federal Government will take in medicine, in what is called State medicine.

The doctors themselves are showing the way to distribution of medical services. In replies to questionnaires which now have been answered by nearly all the 181,000 American physicians, thousands are volunteering to move into industrial areas or even into communities denuded by war requirements.

In the background are the refugee physicians. There are about 6000 of them in the United States, and of these probably no more than 1500 have been able to secure licenses. There is talk of Federal license permitting the others to do medical and health work on Government call.

The spirit among American physicians is:
"We shall do what the Government wants and like it."
—San Francisco *Chronicle*, June 21.

* * *

Army Doctors Taken Off Desk Duties

Washington, July 24.—(UP.)—Secretary of War Henry L. Stimson announced today that Army Medical Corps doctors now engaged in hospital administrative duties will be reassigned soon to purely professional work.

The doctors, Stimson said, will be replaced by members of the Medical Administrative Corps, trained especially to perform such duties. Personnel of the administrative corps is being drawn mainly from the enlisted ranks of the Medical Corps.—San Francisco *News*, July 24.

* * *

Blood Plasma Available

Pacific Coast to Get 7500 Units

San Francisco, July 3.—A supply of approximately 150,000 units of blood plasma will be available for treatment of civilian casualties throughout the nation in the

event of enemy action, the United States Office of Civilian Defense revealed today.

Dr. John B. Alsever, technical director of the blood plasma section of the O.C.D. Medical Division, now in San Francisco, said that the arrangements which had been completed between the O.C.D., the American Red Cross and the U. S. Army guaranteed the civilian population adequate protection in this medical necessity.

Some 30,000 units are now being distributed to hospitals in strategic areas throughout the country with 7500 units to be delivered to the Pacific Coast. Commercial laboratories engaged in preparing plasma for the armed services held an additional reserve of 30,000 units for civilian use, which would not be withdrawn unless actual need existed.

The Office of Civilian Defense has also contracted for the delivery beginning July 15 of 50,000 units of dried plasma from a Los Angeles laboratory and its medical division is supervising the preparation of an additional 40,000 to 50,000 units in private hospitals.

In the Ninth Region, Dr. Alsever added, the Red Cross bleeding centers at San Francisco and Los Angeles would, if necessary, devote all their facilities to collection of blood for civilian use. He stressed the need for blood donors for the Army and Navy and civilian defense and urged that civilians in all communities offer their blood to the Red Cross procurement centers or agencies operated by the Red Cross.—Los Angeles *Examiner*, July 4.

* * *

More Donations Asked Here for Blood Bank

The Surgeons General of the United States Army and Navy have requested that the American Red Cross furnish the armed forces as soon as possible, 2,800,000 units of blood plasma, during the next 12 months, it was announced here yesterday by Gurney E. Newlin, chairman of the Los Angeles Chapter, American Red Cross.

The blood plasma project was inaugurated in February, 1941 and has now developed into the largest controlled medical undertaking in United States history.

"Aside from being the largest controlled medical undertaking in our history, it is one of the most important at this time," Newlin pointed out, "to furnish this plasma to the medical corps of our Army and Navy.

"In this particular job the American Red Cross is the procurement agency. After the blood has been taken from individuals, it becomes the property of the Army and Navy and is turned over to the armed forces for distribution.

"The Red Cross has absolutely no control in distribution."

O.C.D. to Get Supply

"Through the Army and Navy arrangements have been made for the distribution of 150,000 units of blood plasma to the United States Office of Civilian Defense. This is to be used, according to agreement, in case of a major disaster and is available for treatment of civilian casualties.

"On the West Coast at the present time there are 7500 units available and a reserve of an additional 7500 units should the civilian population suffer from enemy bombing, any type of major disaster as a flood, tornado, earthquake, etc., or sabotage in our factories. This blood plasma can only be obtained through the chief of the Emergency Medical Services of the Office of Civilian Defense."

Newlin pointed out that because of the tremendous importance of securing blood plasma from volunteer donors that the Red Cross blood bank in Los Angeles has been asked to increase its weekly quota from 1885 units of plasma to 3000 units, which is necessary to meet the requirements of the armed forces and Office of Civilian Defense.

He stated that any limitation of this program might jeopardize the lives of our civilian population in times of an emergency and even cost the lives of a soldier, sailor or marine now serving with the armed forces.

Thanks Donors

Newlin expressed deep appreciation to the thousands of people who have donated their blood up to this time and particularly for those who have come back a second and third time to offer this life fluid for our boys or for their own loved ones in case of a disaster here at home.

He pointed out that virtually all hospitals in this area have blood plasma in stock for the ordinary every day emergencies that arise in a metropolitan city of this type.

This plasma or blood for transfusion purposes, is available under the same plan in civilian hospitals as it was before the war.

He made an urgent request that everyone physically fit give a pint of their blood to the American Red Cross blood bank by calling ROchester 0121 or calling personally at 925 South Western avenue.—Los Angeles *Examiner*, July 4.

Doctors, Nurses Aid Blood Plan

Doctors, nurses and technicians from various hospitals in Alameda County will volunteer their services to aid the Highland-Alameda County hospital operate the blood procurement program established to provide plasma for emergency civilian use, according to Dr. Benjamin W. Black, medical director of the hospital.

The program is expected to have its inauguration at the hospital this week, with 30 volunteer donors contributing a pint of blood each to swell the blood bank supply begun earlier at the hospital.

Beginning July 6, and continuing every Monday, Wednesday and Friday evenings from 7 to 9 o'clock, the supervisory committee expects to have the procedure in operation at increased capacity.

Dr. George F. Calvin, chairman of the committee, is in charge of the program, assisted by Dr. Gordon McLean and Dr. Gertrude Moore, members of the committee, and Dr. Glenn A. Pope, Highland hospital administrative assistant.

Through coöperation of the Oakland chapter of the American Red Cross, registration of volunteer blood donors is being taken daily at chapter headquarters, 108 Lake Street, by Red Cross Nurses' Aide personnel.—Oakland *Post-Enquirer*, June 29.

COMMITTEE ON POSTGRADUATE ACTIVITIES†

Institute on Wartime Industrial Health: Program Outline*

(San Francisco Meeting)

Sponsored Locally by San Francisco County Medical Society

Tuesday Afternoon and Evening—August 18, 1942
San Francisco—Hotel Clift

*Chairman—Robert T. Legge, M.D., F.A.C.S.
Past President, Western Association of Industrial Physicians and Surgeons*

- 2:00 p.m.—*Opening of the Institute*—John W. Cline, M.D., President, San Francisco County Medical Society, San Francisco.
- 2:10 p.m.—*Objectives of the Institute*—Robert T. Legge, M.D., Berkeley.
- 2:25 p.m.—*The Conservation of Industry's Manpower*—Carey P. McCord, M.D., Detroit, Michigan.
- 2:50 p.m.—*Industrial Hygiene in War Production*—J. J. Bloomfield, U. S. Public Health Service, Bethesda, Maryland.
- 3:10 p.m.—*Occupational Diseases and Their Control*—Harold T. Castberg, M.D., and Fred R. Ingram, M.S., State Department of Public Health, Berkeley.
- 3:55 p.m.—*The Physician's Legal Responsibilities*—C. H. Fry, Industrial Accident Commission, San Francisco.
- 4:15 p.m.—*The Surgical Management of Industrial Injuries*—Nelson J. Howard, M.D., San Francisco.
- 4:45 p.m.—*Discussion of papers.*
- 6:30 p.m.—*Informal Dinner.*
- 8:00 p.m.—*Management Looks At Industrial Health*—Frank P. Foiesic, Waterfront Employers' Association, San Francisco.

† Requests concerning clinical conferences, guest speakers, and other information, should be sent to the California Medical Association headquarters office, 450 Sutter, San Francisco, in care of the Association Secretary, who is secretary ex officio of the Committee on Postgraduate Activities.

* For information concerning places and dates of meetings, see CALIFORNIA AND WESTERN MEDICINE, July, 1942, on pages 101-102.

- 8:20 p.m.—*Women At Work*—Carey P. McCord, M. D., Detroit, Michigan.
 8:40 p.m.—“*Save a Day*”—U. S. Public Health Service motion picture.
 9:00 p.m.—*Four Questions Answered*:
 Panel: Mr. Bloomfield Dr. Howard
 Dr. Castberg Mr. Ingram
 Mr. Foiesic Dr. Legge
 Mr. Fry Dr. McCord

Speakers' Who's Who—Institutes on Wartime Industrial Health

- Bell, W. P., Crockett, California: personnel manager, California and Hawaiian Sugar Refining Corporation, Ltd.
 Bloomfield, J. J., Bethesda, Maryland: sanitary engineer; chief, States' Relations Section, Division of Industrial Hygiene, National Institute of Health, U. S. Public Health Service.
 Castberg, Harold T., M. D., Berkeley, California: passed assistant surgeon, U. S. Public Health Service; acting chief, Industrial Hygiene Service, California State Department of Public Health.
 Cherry, I. S., M. D., Huntington Park, California: president, Southeast Branch, Los Angeles County Medical Association.
 Cline, John W., M. D., San Francisco, California: president, San Francisco County Medical Society.
 Dart, E. E., M. D., Los Angeles, California: director, Division of Industrial Hygiene, Los Angeles County Health Department.
 Durkin, John J., M. D., Inglewood, California: president, Inglewood Branch, Los Angeles County Medical Association.
 Foiesic, Frank P., San Francisco, California: president, Waterfront Employers' Association.
 Frees, Benjamin M., M. D., F.A.C.S., Los Angeles, California: chief surgeon, Armour & Company, Firestone Tire & Rubber Company; president, Western Association of Industrial Physicians and Surgeons.
 Fry, C. H., San Francisco, California: chief, Industrial Accident Prevention Bureau, California State Industrial Accident Commission.
 Howard, Nelson J., M. D., San Francisco, California: assistant clinical professor of surgery, Stanford University School of Medicine.
 Ingram, Fred R., M. S., Berkeley, California: supervising industrial hygiene engineer, Industrial Hygiene Service, California State Department of Public Health.
 Jelte, Safford A., M. D., Oakland, California: president, Alameda County Medical Association.
 Legge, Robert T., M. D., F.A.C.S., Berkeley, California: professor of hygiene (emeritus), University of California; past president, Western Association of Industrial Physicians and Surgeons.
 McCartney, O. D., M. D., Glendale, California: vice-president, Glendale Branch, Los Angeles County Medical Association.
 McCord, Carey P., M. D., Detroit, Michigan: medical advisor, Chrysler Corporation; medical director, Industrial Health Conservancy Laboratories; director, American Association of Industrial Physicians and Surgeons.
 Murray, A. R., Los Angeles, California: personnel manager, Owens-Illinois Pacific Coast Company.
 Perelle, C. W., San Diego, California: vice-president in charge of production, Consolidated Aircraft Corporation.

Stead, Frank, Los Angeles, California: industrial hygiene engineer; chief, Division of Industrial Hygiene, Los Angeles County Health Department.

Taylor, Walter L., M. D., Martinez, California: president, Contra Costa County Medical Society.

Weiskotten, W. O., M. D., San Diego, California: president, San Diego County Medical Society.

COMMITTEE ON MEDICAL ECONOMICS

Rebates

Reference to the rebate evil is made in the minutes of the House of Delegates of the California Medical Association (see July issue of CALIFORNIA AND WESTERN MEDICINE, on page 67 for resolution introduced by Doctor Wilbur Bailey; and page 87, for report thereon by Reference Committee No. 3).

In accordance with the instructions given, C.M.A. Delegate Dwight L. Wilbur presented to the House of Delegates of the American Medical Association (see J.A.M.A., June 27, 1942, on page 724), the resolution which follows:

Resolutions on Rebates

Dr. Dwight L. Wilbur, California, submitted the following resolutions, which were referred to the Reference Committee on Amendments to the Constitution and By-laws, with which the Judicial Council will sit:

WHEREAS, The Principles of Medical Ethics of the American Medical Association in chapter III, article I, section I, states that "The obligation assumed on entering the profession demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards . . ."; and

WHEREAS, Section 5 of the same chapter and article states that "It is unprofessional to receive remuneration from patents or copyrights on surgical instruments, appliances, medicines, foods, methods or procedures. It is equally unprofessional by ownership or control of patents or copyrights either to retard or to inhibit research or to restrict the benefit to patients or to the public to be derived therefrom. It is unprofessional to accept rebates on prescriptions or appliances, or perquisites from attendants who aid in the care of patients"; and

WHEREAS, Article VI, section 4, of this chapter states that "When a patient is referred by one physician to another for consultation or for treatment, whether the physician in charge accompanies the patient or not, it is unethical to give or receive a commission by whatever term it may be called or by any guise or pretext whatsoever"; and

WHEREAS, Section 5 of this same article and chapter states that "It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and to the welfare of the people, and is against sound public policy"; and

WHEREAS, Recent articles in magazines of wide national circulation have called attention to shady practices of secret rebates to physicians; and

WHEREAS, Commercial concerns and laboratories, by the employment of cappers and steerers, and by secret rebating are largely responsible for these criticisms; and

WHEREAS, The Better Business Bureau has complained of practices in which secret rebates were offered or accepted by physicians; and

WHEREAS, The dishonest acts of a few may be reflected to the discredit of the many; now, therefore be it

Resolved, That it be declared unethical for the members of the American Medical Association or its component branches to refer patients to commercial organizations, laboratories or other physicians who advertise to the public and others than the medical profession, who employ steerers or cappers or who offer to pay rebates or com-

missions or in any other manner violate the Principles of Medical Ethics of the American Medical Association or its component branches; and be it further

Resolved, That any physician violating these resolutions be subject to whatever disciplinary action is deemed advisable by the county society of which he is a member.

The action taken by the special committee of the A.M.A. House of Delegates, after conference with C.M.A. delegates and others, follows:

Report of Reference Committee on Amendments to the Constitution and By-laws

Dr. Walter E. Vest, Chairman, presented the following report, which was adopted section by section and as a whole on motions of Dr. Vest, duly seconded and carried: . . .

2. Resolutions on Rebates

Your reference committee has given very serious consideration to these resolutions. It is the opinion of your reference committee that the practices referred to in the resolutions are beneath the dignity of a learned profession, are basically dishonest and are a violation of the Principles of Medical Ethics. Your reference committee therefore recommends that the following substitute resolutions be adopted.

WHEREAS, It has been brought to the attention of the House of Delegates that the unscrupulous practice of rebates to physicians is being engaged in by various commercial organizations, laboratories, supply houses and in some professional relationships between certain physicians; and

WHEREAS, All such practices are clearly in violation of the Principles of Medical Ethics; therefore be it

Resolved, That the House of Delegates of the American Medical Association express stern disapproval of the practice by any of the members of its component societies of referring patients to commercial organizations, laboratories or other physicians who advertise to the public and others than the medical profession, who employ so-called steerers or cappers or who pay, or offer to pay, rebates or commissions in any guise whatsoever, or who in any other manner violate the Principles of Medical Ethics of the American Medical Association; and be it further

Resolved, That any member violating these resolutions be subject to such disciplinary action as is deemed advisable by the county society in which such physician holds membership; and be it further

Resolved, That the Secretary of the American Medical Association be instructed to send a copy of these resolutions to each state and county society, accompanied by a letter to the secretary of each setting forth that all such unethical practices are disreputable and unscrupulous and, if not controlled, may soon besmirch the reputation of the entire medical profession.

Respectfully submitted,

WALTER E. VEST, *Chairman*,
WALTER F. DONALDSON,
KARL S. J. HOHLEN,
EDWARD M. PALLETTE, SR.,
WILLIAM WESTON.

* * *

Resolutions on Improvement of Relations Between Physicians and Insurance Companies

For reference to actions by C.M.A. House of Delegates, regarding "Improvement of Relations between Physicians and Insurance Companies," see CALIFORNIA AND WESTERN MEDICINE, July, 1942, on page 67.

The resolution adopted at Del Monte was presented to the A.M.A. House of Delegates in Atlantic City by C.M.A. Delegate Lyell C. Kinney (see J.A.M.A., July, 1942, on page 728 and 729).

Dr. Lyell C. Kinney, California, presented the following resolutions, which were referred to the Reference Committee on Legislation and Public Relations meeting jointly with the Reference Committee on Miscellaneous Business:

WHEREAS, It is desirable that physicians and insurance companies cooperate to the fullest extent, especially in the interest of persons covered by health and accident insurance; and

WHEREAS, A serious situation has arisen in the administration of certain health and hospitalization schemes whereby medical services are being billed under the term "hospital services" and are being paid for by insurance companies as they are labeled hospital services; and

WHEREAS, The continuation or extension of such practices will inevitably lead to the inclusion of any type of medical service under the label "hospital service," at the convenience of the corporations involved and to the detriment of medical care; now therefore be it

Resolved, That the House of Delegates of the American Medical Association hereby requests insurance companies to cooperate with the organized medical profession to the end that hospitalization policies shall include only hospital benefits. If the inclusion of indemnification for medical services, such as surgery or radiology, is desired, then payment of such shall be made only on receipt of certified statement from a physician that he has rendered such. Fees for medical services should be paid to physicians via indemnity to the assured, or by check payable jointly to assured and physician. This practice should be maintained irrespective of whether a hospital chooses to bill for medical services as a part of its hospital bill; and be it further

Resolved, That the House of Delegates of the American Medical Association requests hospitals and physicians to cooperate with it in this important step, by seeing that bills for hospital and medical services are clearly distinguished; the latter should bear the name of the physician rendering the service to indicate clearly that the charge is for medical service.

Report of Reference Committee on Reports of Board of Trustees and Secretary

Action of House of Delegates of American Medical Association, re: (a) Medical Service Plans, and (b) Program for Farm Security Administration

Dr. Louis H. Bauer, Committee Chairman, presented the following report, which was adopted section by section and as a whole on motions of Dr. Bauer, duly seconded and carried after discussion:

1. Report of Bureau of Medical Economics in Report of Board of Trustees

Two activities of the Bureau of Medical Economics in which no comment was made in the general report of your reference committee have been held over for further discussion, and the report follows. These activities are those listed as Medical Service Plans and the program of the Farm Security Administration.

(a) Medical Service Plans

A recommendation was made a year ago that the Bureau establish some method of coordination and interchange of material pertinent to the administration of prepayment plans for medical care sponsored by medical societies. The Bureau began a study of such plans, and data are coming in. It is contemplated that the Bureau will become a clearing house for factual data pertaining to the whole subject which will be available to all state and county medical societies.

It might be well at this point to review briefly the principles already adopted by the House of Delegates in 1938: 1. Hospital service insurance was approved in principle. It was felt that these plans should confine themselves to provision of hospital facilities and should not include any type of medical care. 2. It was recognized that health needs are not identical in different localities but depend on local conditions and, therefore, are local problems. 3. Cash indemnity insurance plans were considered practicable of development in order to cover in whole or in part the costs of emergency or prolonged illness. Such plans were also to have approval of the county and state medical societies of their respec-

tive areas. 4. A stand was reiterated against any system of compulsory health insurance. 5. A conviction was expressed that voluntary indemnity insurance may assist many income groups to finance their sickness costs without subsidy. It was further stated that development of group hospitalization and establishment of insurance plans on the indemnity principle to cover the cost of illness would assist in the solution of these problems.

As a result of the adoption of these principles, various organizations came into being. Not only is the cash indemnity principle being used, but medical service plans, some on the so-called unit plan, have also developed. Taken as a whole, progress has been slow and disappointing. It seems to your reference committee that there are two outstanding reasons for this. First, the public has not shown any great desire for such plans. Its attitude is often that it has always obtained medical care when and where it wanted it, and paid for it when and if it pleased—so why budget ahead for something it believes it can get anyway? The other reason is partly tied up with the first. The original idea of all such plans was to find some means of delivering good medical care to those in the economic group above indigence and below complete self sufficiency. This aim has to a large extent been lost sight of, and there has been a tendency to make the fee factor more important than the delivering of good medical care. One thing is certain, and that is that the development of sound, workable, voluntary plans will do more than anything else to avert the introduction of some compulsory plan.

The Bureau of Medical Economics feels that the principles already adopted by the House are sound and should be adhered to and that there is nothing to indicate that medical service organizations and group hospitalization cannot function separately as parallel services in communities that are sufficiently interested to support them. Your reference committee agrees in general but feels that certain modifications are advisable:

1. Reiteration should be given to the fact that the aim of all plans should be to facilitate delivery of the best medical service to those who are in the economic group below self sufficiency.

2. To help carry this out, approval should be given to the principle of medical service for the low income groups, provided the local situation warrants and the local county and state medical societies approve.

3. The part to be played by the American Medical Association should be restricted to the adoption of broad general principles and to acting as a clearing house, as already planned by the Bureau of Medical Economics.

The idea that the American Medical Association can and should develop a plan on a countrywide basis is contrary to sound common sense. One of the claims we have always made in opposing state medicine is that medical control cannot be centralized. Conditions vary in different states and even in different counties in the same state. What will work in one locality is impracticable in another. Plans, therefore, should be largely local in character so far as details are concerned, and national only so far as broad general principles are concerned.

The matter of the cash allowance of \$3 a day for hospitalization for those employed under the Social Security Act is not yet sufficiently definite for the House to take action on it. The matter should be referred to the Board of Trustees for appropriate action, if and when the matter becomes more definite.

(b) Program for Farm Security Administration

Medical care plans sponsored by the Farm Security

Administration are operating in more than nine hundred counties of thirty-seven states and involve more than one hundred thousand families and more than five hundred thousand persons. The Farm Security Administration now proposes what amounts to a voluntary health insurance plan for all farm families in an average county in one or more areas and would give more complete medical care than the present Farm Security plan does, all to be worked out between the county agricultural planning committee and the county medical society. Because financial conditions have changed for the better in farm communities since the original proposition was made, it is probably less urgent now. Furthermore, it requires more study than can be given it during this meeting. Therefore your reference committee recommends that the matter be referred back to the Board of Trustees for study and such action as it deems fit.

Respectfully submitted,

LOUIS H. BAUER, *Chairman*,
J. F. HASSIG,
A. R. MCCOMAS,
WILLIAM R. MOLONY, SR.,
PARKE G. SMITH.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION†

Basic Science Initiative (No. 3 on November Ballot)**

During the present lull in the primary election campaigns, before the candidates warm up to hot discussion of issues which will be settled at the polls on August 25, it might be well for voters to give some thought to the 18 propositions which will face them for decision in November.

Three of these ballot propositions are initiatives submitted to the people by petition, and one has been the subject of great controversy. It proposes a reorganization of the State's building and loan association laws to give better protection to certificate holders. The other two are for repeal of the State income tax and creation of a new State board of basic sciences which would govern the issuance of certificates attesting to a knowledge of the fundamental principles of the healing arts.

In addition, there is one highly controversial proposal which will undoubtedly become an issue in the primary election campaign before the August election, although the people will not decide it until November. That is the hot cargo bill which was passed by the Legislature over the Governor's veto and was placed on the ballot for referendum. . . . —Oakland Tribune, July 5.

* * *

State Initiative Qualifies

Sacramento, June 26.—(INS.)—Submission of petitions bearing 165,376 signatures from Los Angeles County qualified a basic science initiative for the November general election ballot.

† Component County Societies and California Medical Association members should not give endorsements to proposed legislation unless the California Medical Association Committee on Public Policy and Legislation has so requested. On such matters, address: California Medical Association Committee on Legislation, Dwight Murray, M.D., Chairman, 450 Sutter, San Francisco. Telephone, DOuglas 0062.

** In this issue, for other comment, see editorial department, on page 115.

Sponsored by both the California Medical and Dental Associations, the proposed act would establish a new five man board to conduct examinations in basic sciences for license applicants. Candidates passing board examinations would then apply to the board of medical examiners or other licensing agencies for permits. The board would be appointed by the governor. . . .—*Fresno Bee*, June 26.

* * *

"Medical Academies" for the Nine Army Corps Areas

H.R. 7231 was introduced June 16 by Representative Dickstein, of New York, (a bill for the creation of medical academies). This measure proposes that there will be established in each corps area of the United States, as now constituted, a medical training school for the instruction of physicians for the armed forces and the United States Public Health Service. Each such school, it is proposed, will enroll a minimum of 295 students. Each Representative and Senator from the area comprising the corps will designate five principals and ten alternates and any vacancies will be filled by the commanding general of the army corps. Candidates for admission must be at least twenty years of age and not over twenty-five, must be graduates of a college or university or possess the qualifications for entrance into a medical school in the State of which they are residents, must be citizens of the United States and of good moral character.

No action has been taken on the bill. It is pending in the House Committee on Military Affairs. Representative Dickstein explained the purpose of his bill on the floor of the House June 16. After having expressed himself in opposition to the proposal submitted by the President for making loans to students pursuing accelerated courses, Representative Dickstein said in part:

"In view of this war, in view of what we expect to happen—and I hope it does not happen—we will need every man who is capable of taking care of and giving attention to our wounded veterans, and this will result in a better understanding amongst the American people. I am going to ask the Committee on Military Affairs for an early hearing. I propose to submit proof and evidence of what I have charged here today, and I defy any school, big or small, to deny these charges that very few can enter the schools because of the conditions that I have outlined this afternoon. I am not attacking the medical profession. I am attacking the undemocratic practice of discrimination which prevails in many medical schools. . . ."—*Legislative Bulletin*, No. 17.

* * *

Financial Aid to Medical Students

Financial Aid to Medical Students; Federal Medical Academies.—On May 28, the President transmitted to Congress a supplemental estimate of appropriations, in the amount of \$10,000,000, to assist students, in such numbers as the Chairman of the War Manpower Commission shall determine, participating in accelerated programs in degree-granting colleges and universities in engineering, physics, chemistry, medicine (including veterinary), dentistry, and pharmacy and such other technical and professional fields as are determined to be necessary in connection with the national war effort (House Document No. 744, 77th Congress).

Loans would be made, according to the proposal, to students, to enable them to pursue courses beyond the second collegiate year, who have attained and continue to maintain satisfactory standards of scholarship, who are in need of assistance, and who will agree in writing to participate, until otherwise directed by the Chairman of the War Manpower Commission, in accelerated programs of study in any of the fields named and who will

agree in writing to engage, for the duration of the wars in which the United States is now engaged, in such employment or service as may be assigned by officers or agencies designated by the Chairman, such loans to be made by the colleges and universities or public or college-connected agencies.—*Legislative Bulletin* No. 17, July 1, 1942.

* * *

Chiropractors and the United States Employees' Compensation Act.—The House Committee on the Judiciary has ordered the Tolan bill, H.R. 1052, favorably reported to the House, proposing to accord to chiropractors the right to treat beneficiaries of the United States Employees' Compensation Act. The bill has not as yet been actually reported but available information indicates that the Committee will complete action on the bill within the near future.—*Legislative Bulletin* No. 17.

COMMITTEE ON PUBLIC HEALTH EDUCATION†

Greatest War Health Problem: Syphilis

The greatest health problem facing the United States in World War II is syphilis, according to Captain C. S. Stephenson, head of the division of preventive medicine of the Navy's Bureau of Medicine and Surgery.

Control of the disease is of equal importance to the military and the industrial effort, in Captain Stephenson's judgment, and victory in this regard will not only hasten victory in the war but lead to lasting benefits for the entire population in postwar days.

Selective Service officials found 63,000 cases of syphilis in the first 1,000,000 men examined for the Army. This led the Public Health Service to increase its estimate of the extent of syphilis in the nation from 1 per cent of the population to 2 per cent.

The Navy, Captain Stephenson made clear, is interested in the problem from three approaches. First, it is interested in protecting the health of its own personnel. Second, it is interested in having a reservoir of healthy citizens from which to draw future personnel. Third, it is interested in seeing that disease does not reduce the industrial production without which the fighting forces are powerless.

"The fact must be faced that our nation must bring about in the shortest practicable time a great increase in the armed forces," Captain Stephenson said at the Atlantic City meeting of the American Medical Association.

At the same time, he believes that the nation must be prepared to deal with the health problems which will arise from the shift in populations which is resulting from expansion of old industries, the creation of new industries, and the general shift from a peacetime to a wartime production schedule.

"This rearrangement of population will create many health and social problems," he continued. "The great-

† The Committee on Public Health Education was established through Substitute Resolution No. 6 at the Del Monte annual session, May 3, 1939.

The Committee on Public Health Education consists of Frank R. Makinson, chairman, Oakland; Philip K. Gilman, secretary, San Francisco; Samuel Ayres, Jr., Los Angeles; Thomas A. Card, Riverside; James F. Doughty, Tracy; Lowell S. Gohn, Los Angeles; Dwight H. Murray, Napa; Henry S. Rogers (ex officio), Petaluma. Communications to the committee may be addressed to Frank R. Makinson, M.D., chairman, Wakefield Building, Oakland, or to the California Medical Association office, 450 Sutter Street, San Francisco.

est of these is syphilis, the control of which will greatly assist the military surgeon to conserve manpower and to increase the effectiveness of the armed forces."

The problem of syphilis, Captain Stephenson emphasized, is not primarily a problem of the treatment of the disease but one of prevention; of protecting the well from the diseased. In other words it is a problem of public health.

In this connection he pointed out that 64 years ago, Dr. J. J. Marion Sims, then president of the American Medical Association, stressed the necessity of a public-health approach to syphilis, urging that existing boards of health be given the same power over syphilis which they then possessed over cholera, smallpox and yellow fever.

"They now have the power of ferreting out these diseases and they should have the same power of searching out the abode of syphilis and of sending its victims to hospitals for treatment," Dr. Sims said in 1876.

But though Dr. Sims preached the right doctrine in 1876, Captain Stephenson says that no one tried to apply it until 1917 when Newton D. Baker, then secretary of war, took action.

Mr. Baker, he related, wrote to the governors of the states and the chairmen of the state councils of national defense: "I am determined that our new training camps as well as the surrounding zones within an effective radius shall not be places of temptation and peril."

Similar action was taken before our entrance into World War II, he added, by joint agreement of the War and Navy Departments, the Federal Security Agency, and state health departments.

This agreement, for the "control of the venereal diseases in areas where armed forces or national defense employees are concentrated," was implemented by Congress with the passage of the May Act. This act prohibits prostitution within areas designated by the Army and Navy.

* * *

How Healthy Are You?

A periodic health examination may add years to your life. Through the recognition of physical changes at the earliest possible moment the progress of menacing degeneration and infection may be stopped, and a suitable plan of living devised to maintain continuous health.

Too many of us never go near the doctor unless we suffer definite illness. We'll go on feeling "poorly" for weeks and months and even years. During those weeks and months and years disease may progress to the point where even modern science can't check it.

Medical authorities recommend that complete physical examinations be taken every year, and twice each year after we pass middle age. Those examinations should cover the entire physical system—lungs, heart, blood, the intestinal tract, teeth, feet, etc. In addition to the physical tests, the doctor will inquire into habits of sleep, rest, outdoor exercise, diet, and so forth. When that is done, the doctor will be able to write a health prescription. That prescription may not involve the taking of medicines. It may, instead, deal exclusively with such matters as rest, work, social adjustments and recreation. In any event, it will probably lengthen life—and make it healthier, happier, fuller.—*Tulare Times*, July 6.

* * *

Keep Healthy, Help Win the War!

Mindful of the soundness of the adage that "an ounce of prevention is worth a pound of cure," the Institute of Life Insurance has started a campaign to tell Americans how to avoid preventable illness. This war within a war, this battle against preventable disease has as its aim the maintenance of top-notch health and energy on the Amer-

ican home front at a time when every production hour counts, when every hour lost through illness that would have been prevented presents a situation that can impede the conduct of the war.

The situation's real seriousness perhaps can be better realized if it is known that by the end of this year 40,000 physicians and dentists and 35,000 nurses will be serving with the armed forces. This is nearly one-third of America's total medical force. Those who are left to take care of the civilian population will have their hands full and could easily be swamped with the work that one serious epidemic might cause.

Surgeon General Thomas Parran, Dr. Morris Fishbein, of the American Medical Association; Paul V. McNutt, federal security administrator, and others have been concerned with the potentialities of the problem unless the American people are sufficiently aroused to participate in a nation-wide health crusade.

The crusade consists of nothing more than following five simple health rules: Eat right—three meals a day of milk, butter, eggs, fish, meat, cheese and other key foods.

Get your rest—remember you cannot catch up on lost sleep.

See your doctor once a year—give him a chance before you get sick.

Keep clean—plenty of baths, fresh air and sunshine.

Play some each day—your mind and body need a change from the daily grind on the job.

These few rules make it easy to keep well. "Just by keeping well you can help win this war," is good advice. —*Napa Register*, July 13.

COMMITTEE ON PUBLICATIONS

Medical Writing—Re: An Article by Dr. Morris Fishbein

In a recent issue, the *Virginia Medical Monthly* printed a "guest editorial," the author of which was Morris Fishbein, M.D., editor of the *Journal of the American Medical Association*. The C.M.A. Council years ago approved the publication of a brochure, "Suggestions to Authors," copies of the same being available on application to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter, San Francisco. Doctor Fishbein's article, on Medical Writing, follows:

Increasing organization in the field of medicine, as in every other field of human endeavor, has introduced advancement in the production of contributions to medical literature. Far too often, however, there are still physicians who prepare their contributions with a striving and agony and delay quite comparable to the delivery of the human progeny by some one quite untutored in the possible refinements associated with that performance. Many a time the physician who has been asked to prepare a simple statement, constituting a review of available knowledge, for a local medical society, fails to inform himself concerning the innumerable agencies prepared to assist him in that simple task. He is likely to seat himself in his office or in his den at home, to surround himself with a liberal quantity of textbooks of more or less recent vintage and with periodicals selected at random, and then endeavor to collate this material in a single evening so that it may ultimately resemble something of usefulness to the physicians on whom it will be inflicted. The first information that this physician should possess is the importance of the preparation of a systematic, orderly scientific outline as the first step in

the preparation of a manuscript on any subject. Even the elementary courses in English composition now teach the significance of having an introduction, a body, summary and conclusion to any type of scientific essay.

Fundamental in the preparation of the manuscript on any scientific subject is a knowledge of the contributions already made to that subject by previous contributors. Now available to the physician is the best series of bibliographic references available in any field of human endeavor. The Index Catalogue of the Surgeon-General's Library, the Index Medicus, and the Quarterly Cumulative Index Medicus and, indeed, even the semi-annual indexes in *The Journal of the American Medical Association*, offer for every physician easily available guides to the most recent contributions on any medical subject. The simplest process is to place each bibliographic reference on a card or a sheet of paper, following the form prescribed for bibliographic references by leading medical publications; under this bibliographic reference should be placed a brief abstract or summary of the article concerned. The physician may then systematize the presentation of this material by classifying his cards under the classical headings developed by Sir William Osler in his textbook on "The Principles and Practice of Medicine," such as *history, etiology, diagnosis, symptoms, prophylaxis, prognosis, and treatment*, or he may choose to assemble his references in chronologic order. Thus, obviously, it merely becomes necessary to insert this material in the proper place in the outline of the presentation that he will make.

Professional writers in every field of literature have come to realize the importance of preparation of a manuscript for the publication to which it is meant to be sent. Some periodicals limit themselves to articles of 1,500 words; some periodicals are capable of handling large monographic presentations. *The Journal of the American Medical Association*, for instance, endeavors to limit practically all scientific contributions to six pages or not more than 6,000 words (preferably articles are much shorter). In the instance of special articles prepared for a specific purpose much greater latitude prevails. Obviously the physician who is preparing an article for a state medical journal, for one of the periodicals devoted to a medical specialty, or for any other medical periodical should be familiar with the nature of the publication and should plan his article according to the usual plan followed by the editor of that publication.

Many a medical writer has expressed the view that such limitations as are here mentioned interfere seriously with proper display of the individuality of the literary contributor. Actually one may utilize his literary accomplishments and style to far better advantage under some such orderly plan than when the writer gives free rein to his imagination and writes as the spirit moves him. One of my most respected teachers once said that the outward appearance of a manuscript, the character of its arrangement, the quality of its spelling and punctuation and choice of diction were excellent indications of the personal characteristics and scientific qualifications of the writer. The clinician or the research worker in the laboratory betrays in his literary contributions the possession or lack of ownership of a scientific mind.

Competition in the field of medical writing is certainly as great as that in the field of medical practice. The leading medical publications are constantly overwhelmed with offers of material. Many of the periodicals devoted to medical specialties find it necessary to hold manuscripts from six months to a year or more before space can be found for their publication. *The Journal of the American Medical Association* receives five times as many manuscripts as can be given room in its pages. Therefore, the physician who launches into the arena a literary venture poorly clad, unsound in its constitution, limping

in some of its sections, bruised by bad grammar, inadequately camouflaged in its obvious deficiencies, may expect to have his progeny returned with the simple but trite statement, "The editor regrets . . ."

C.M.A. CANCER COMMISSION†

(COPY OF MID-YEAR STATE REPORT)

FIELD ARMY

of

THE AMERICAN SOCIETY FOR THE CONTROL OF
CANCER, INC.

California State Division

State Commander, Mrs. Henry Ullmann

3 West Carrillo Street

Santa Barbara, California

MID-YEAR STATE REPORT

July, 1942

This is the first state report since the death of Dr. Charles A. Dukes, March 13, 1942. As chairman of the State Executive Committee, his broad vision and timely judgment was invaluable to us.

At the annual meeting of the California Medical Association, Dr. Harold Brunn, of San Francisco, was appointed chairman of the State Executive Committee.

Organisation

The 1942 campaign report reveals marked progress within our state.

Counties actively organized, 31.

Executive Committee members, 250.

Advisory Board members, 376.

Commanders, officers and workers, 603.

Number of meetings held, 376.

State organizations coöperating, 47.

Educational Campaign

Literature has been distributed in every county within the state.

Total pieces of literature distributed, 170,000.

Number of display posters and counter cards, 766.

Educational meetings (lectures and showings of films), 569.

Specific educational work in colleges and schools:

a—Writing of essays.

b—Writing and producing radio skits.

c—Showing of films.

d—Work in Science classes.

e—Lectures.

f—Distribution of literature.

Publicity

The state publicity has reached out into new territories with articles, also reprints from the metropolitan papers have appeared in the smaller communities. The larger communities, in particular, report success with radio "spot" announcements and newspaper headlines.

Total items of publicity material released, 705.

Total number of newspaper inches rated, 2,006.

Total number of radio programs arranged, 18.

The Publicity Scrap Book has been compiled and sent to New York.

Enlistment Campaign

The State has failed to raise its quota which is 1 per

†For roster of members of the Cancer Commission of the California Medical Association, see page 2 in the front advertising section (bottom of the second column).

cent of the population. The official financial report is not complete, due to delay in returns from a few counties. This report will be issued at a later date.

General Items of Special Interest

Mrs. Emily G. Bogert, of Denver, Western Regional Deputy Commander, made an official visit in January, speaking in San Francisco, Fresno, San Diego, Los Angeles and Santa Barbara.

Can containers were designed and donated by the San Quentin Hospital.

Affiliation with the General Federation of Women's Clubs.

Reference books were placed in schools and public libraries.

Exhibit booth at state meeting of the California Medical Association.

Acknowledgment

The State Committee expresses its appreciation to the many who have contributed time, services and funds to make possible this educational program in California.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. F. G. LINDEMULDER.....President
MRS. RENE VAN DE CARR.....Chairman on Publicity
MRS. ROSSNER GRAHAM.....Asst. Chairman on Publicity

President Lindemulder's Report on the Twentieth Annual Convention of the Woman's Auxiliary to the American Medical Association

Atlantic City, New Jersey, June 8-12, 1942

Dear Auxiliary Members:

The Twentieth Annual Convention of the Woman's Auxiliary to the American Medical Association was held in Atlantic City, from June 8 to 12, 1942. The official headquarters were at the Hotel Haddon Hall, located on the famous Board Walk, in the heart of the city. The registration desk, meeting rooms, and exhibits were all on the lounge floor, which meant that the women were undisturbed during the entire convention.

Because so many previous medical conventions have been held in this beautiful Convention City, the Woman's Auxiliary to the New Jersey Medical Association had everything well in hand, and things ran very smoothly. Very little attempt was made to entertain the women other than with luncheons and a tea, for the shops and auctions located on the Board Walk, as well as a very inviting ocean, took up all the spare time between business sessions. Atlantic City is just fifteen miles from the sea lanes where there has been so much submarine activity, and there was a very efficient Dim-Out every evening. No cars were allowed to drive with any but dim lights, and all the shop windows were covered with a blue celluloid material, which cast an eerie glow over the promenaders, who, however, still promenaded as they did before this awful war.

When the members and guests registered, each one was handed an envelope filled with samples and recipe books which had been donated by the various exhibitors at the American Medical Association headquarters. It took the New Jersey women quite a bit of time to contact all these companies and obtain these for us.

† Reports of county chairmen on publicity should reach Mrs. Rossner Graham, Assistant Chairman of Publicity, 3101 Acacia, Oakland, by the tenth of the month previous to publication. Address of the Chairman of Publicity: Mrs. Rene Van de Carr, 51 Prospect Road, Piedmont. For roster of state and county officers, see page 6, in front advertising section.

On Monday, June 8th, at nine o'clock in the morning, Mrs. Mosiman, the National President, opened the meeting of the Board of Directors. At that time, I was able to meet and know who the various national officers were. It was explained to us that, now we have a National Executive Secretary, the entire setup of the organization will be different, for she would do much of the routine work that formerly had been done by the officers.

That afternoon, a delightful tea was given in the Garden Room, which overlooks the ocean, honoring Mrs. Mosiman and Mrs. Haggard, the incoming president. A string quartette entertained us with music during the tea. At this time it was possible to converse with the presidents of other State Auxiliaries and find out how they functioned.

Tuesday, June 9th, at ten o'clock in the morning, the formal opening of the Twentieth Convention took place in the Vernon Room, with Mrs. Mosiman presiding. The Address of Greeting was given by Mrs. J. H. Hornberger, who graciously welcomed us to their lovely city. Mrs. William Butler of Michigan, made the Response. Next Mrs. J. E. Weir gave the *In Memoriam* service. Then Dr. W. J. Carrington, Chairman of the men's arrangements also welcomed us to Atlantic City. Miss Margaret Wolfe, the new Executive Secretary, was introduced, and told us all about the Central Office which has been established in Chicago. Miss Wolfe is well fitted for her position, having been secretary to a doctor for twelve years before accepting this position. Action was authorized at this session to take out a five hundred dollar fire insurance policy for this office. It was also decided that the Auxiliary Archives would remain at the American Medical Association's headquarters rather than move them to our own office, as on occasion the Association members need to refer to them. The rest of the meeting was taken up by the reports of the various national chairmen. These will be published in the *Bulletin*, and I will not bore you with repetition.

At noon the meeting adjourned for luncheon, which was served in the Rutland Room. Upon entering, everyone was presented with a gardenia. During lunch, we were entertained by a baritone soloist. Mrs. Mosiman presided, and regretted that Dr. Lahey, American Medical Association President, who was to speak to us, was unable to attend. Dr. W. W. Bauer, of Chicago, whom many of you had the pleasure of hearing when he was in California this Spring, gave an interesting talk on *Health Education*. He said: "The whole country has but one purpose—to win the war; and the health of our country has the most essential bearing on this purpose. It is not true that we are physically soft. Not only can our Youth take it, but they are showing they can dish it out. Draft rejections do not show the health status of our country—there are many reasons for rejections that are not remedial, such as color-blindness, near-sightedness, etc. Our nation is healthier than it ever was before; we have a lower death rate and an increasing health consciousness because we know more." Dr. Bauer congratulated the Auxiliary on the splendid work that has been done with *Hygeia*. He cautioned us, however, to remember that we are not magazine salesmen, for *Hygeia* is not really a magazine; we are health teachers when we advocate its use.

Mrs. Augustus S. Kech, former National President of the Auxiliary, was the next speaker. For the past three and a half years she has been head of Health Education in the State of Pennsylvania. She started out by sending surveys to the various sections of the State, finding out how much money was being spent on health. In one community of 150,000, there were eighty-nine health organizations having no direction from a physician. Out of these, thirty-one were using their money to buy glasses for the needy, most of these cases being sent to

an optometrist. Pennsylvania has a law that furnishes glasses free to the needy upon a statement from an accredited physician that they are necessary. To show them they were doing unnecessary work and to convert these well-meaning organizations, was a simple thing. During Mrs. Kech's régime, there have been thirteen thousand meetings throughout the State addressed by accredited physicians. One thousand seven hundred and ninety-nine subscriptions to *Hygeia* have been allocated to the public schools, and *Hygeia* is used as the text book in all hygiene classes. I am repeating this so you can see what really remarkable things, we, as doctor's wives, can do.

The next speaker was Dr. R. K. Packard, who is Chairman of the National Physicians' Committee. This committee was formed by the American Medical Association to combat what may result in Socialized Medicine after the war is over. It was pointed out that the Selective Service may lead to Socialized Medicine. During these trying times, our soldiers must be given medical care, as must the communities where the Selective Service has not left enough doctors to take care of the people. In Washington today, there are two factions: one for Socialized Medicine and the other against it. As time goes on, we shall hear more concerning this.

Tuesday afternoon, a conference for State Presidents was conducted by Mrs. John L. Bauer, National Organization Chairman, and Mrs. Frank Haggard, incoming President. Mrs. Haggard stated that the aims and projects for this year would remain the same as last: Nutrition and Health Defense.

At eight that evening, the Auxiliary was invited to attend the opening session of the American Medical Association's Convention. Only those of you who have seen the Convention Hall in Atlantic City can realize how impressive this session was. The world's largest organ is in this Hall and the program opened with music. The vastness of the Hall is most overwhelming.

The next morning, the second session of the Woman's Auxiliary was held in the Vernon Room, with Mrs. Mosiman presiding. Two-minute reports were given by the State Presidents, from which some new and constructive ideas were derived. Then came the election of officers, and as there were nominations from the floor, a secret ballot was taken. Due to the length of time this procedure consumed, the meeting was adjourned until after luncheon.

The Wednesday luncheon was held in the Rutland Room, the speaker's table being decorated with orchids. All Board members were presented with gardenias. The guest speakers were: Dr. Fred Rankin, President-Elect of the American Medical Association, who congratulated us on our organization; Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*; and Dr. Charles Gordon Heyd, member of the Board of the National Physicians' Committee, who again impressed upon us the importance of this committee. Following the luncheon, we reconvened for the election and installation of officers.

Thursday morning at ten, Mrs. Frank Haggard presided at the post-convention board meeting. Here again the aims for the year were discussed, with many helpful suggestions from the State Presidents and National Officers. As I had to leave for New York, I was unable to attend the dinner for members and guests held that evening. All the business sessions were over by Thursday noon.

May I express my appreciation for having had the privilege and honor of being sent by you, the members of the California Medical Auxiliary, to the Convention at Atlantic City? It was an experience I shall never forget.

Very sincerely yours,
LEONE LINDEMULDER.

In Memoriam

Mrs. Philip Schuyler Doane

Members of the Medical Auxiliary will be grieved to hear of the death of Mrs. Philip Schuyler Doane, in Pasadena, on June 26.

Mrs. Doane served as State President of the Auxiliary for the year 1934-35. During her term, the office of Editor was instituted and the compilation of the Auxiliary history was begun. Mrs. Doane gave generously of her ability and time to every phase of Auxiliary work, and at the close of her year as President, donated the Doane Membership Cup to the Auxiliary. Besides serving her county and state Auxiliaries in an official capacity, she was active in the national organization.

At the time of her death, Mrs. Doane was co-chairman of the Civilian Defense Council's Health and Welfare Committee in Pasadena, and a member of the Board of Directors of the Pasadena Red Cross Chapter.

The Woman's Auxiliary has lost a loved and valued friend.

COUNTY SOCIETIES†

CHANGES IN MEMBERSHIP

New Members (32)

Alameda County (2)

Edward S. Maloney, *Oakland*

A. I. Teeter, *Oakland*

Butte-Glenn County (2)

Fred D. Baty, *Stirling City*

Clare N. Reese, *Chico*

Fresno County (2)

Evelyn F. Buchheim, *Fresno*

Evelyn M. Ross, *Fresno*

Humboldt County (1)

Nathan Wasserman, *Eureka*

Los Angeles County (3)

A. S. Gough, *Los Angeles*

J. W. Hopkins, *Glendale*

John C. Jones, *Los Angeles*

Orange County (1)

Nicholas E. Bailey, *Orange*

San Diego County (3)

James O. Clayton, *San Diego*

J. E. Giovanazzi, *San Diego*

C. L. Jackson, *San Diego*

San Francisco County (8)

Reynold J. Ferrari, *San Francisco*

William H. Gardener, *San Francisco*

Lewis I. Grodsky, *San Francisco*

Dorothee M. Guttentag, *San Francisco*

Harrel Lee Harrington, *San Francisco*

George T. Lenahan, *San Francisco*

Ann Louise Martin, *San Francisco*

Elizabeth A. Murphy, *San Francisco*

Santa Barbara County (3)

Wm. D. Evans, *Santa Barbara*

† For roster of officers of component county medical societies, see page 4 in front advertising section.

Walter C. Graham, *Santa Barbara*
Donald G. Holcomb, *Santa Barbara*

Sonoma County (6)

Raimond F. Clary, *Santa Rosa*
Gordon H. Congdon, *Santa Rosa*
Martin Hutchinson, *Sonoma*
Aubrey J. Nunes, *Sonoma*
Frank P. Swire, *Sonoma*
Thomas A. Ward, *Sonoma*

Stanislaus County (1)

Sidney Schwartz, *Ripon*

Transfers (2)

Elizabeth W. Tock, from Orange County to San Joaquin County
George E. Webster, from Sonoma County to Los Angeles County

In Memoriam

Burroughs, Paul Revere. Died at Santa Monica, July 1, 1942, age 60. Graduate of the State University of Iowa College of Medicine, Iowa City, 1906. Licensed in California in 1924. Doctor Burroughs was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✱

Fortson, Gordon Russell. Died at San Francisco, July 12, 1942, age 54. Graduate of Stanford University School of Medicine, 1923. Licensed in California in 1923. Doctor Fortson was a member of the Lassen-Plumas-Modoc County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✱

Larner, Thomas Edward. Died at Dobbins, July 4, 1942, age 59. Graduate of the University of Vermont College of Medicine, Burlington, 1907. Licensed in California in 1920. Doctor Larner was a member of the Yuba-Sutter-Colusa Medical Society, and the California Medical Association.

✱

Nelson, Clyde Vincent, Jr. Died at Jackson, Wyoming, June 19, 1942, age 31. Graduate of the University of Southern California School of Medicine, 1935. Licensed in California in 1935. Doctor Nelson was a member of the Los Angeles County Medical Association, and the California Medical Association.

✱

Perry, Joseph Raymond. Died at Lake Almanor, July 7, 1942, age 52. Graduate of the College of Physicians and Surgeons, Los Angeles, 1914. Licensed in California in 1915. Doctor Perry was a member of the Los Angeles County Medical Association, and the California Medical Association.

An absolute diagnosis is dangerous: it closes the avenue to further thinking.

The diagnosis must fit the facts like a glove.

All diagnoses are provisional and subject to change without notice.

CALIFORNIA PHYSICIANS' SERVICE†

Beneficiary Membership

September, 1939.....	1,220
March, 1940.....	9,322
September, 1940.....	17,398
March, 1941.....	24,107
June, 1942.....	39,137

After several months of preparation, C.P.S. is now intensively at work converting the entire full-coverage membership of 40,000 over to the limited surgical and two-visit deductible contracts. Any move affecting so many people, and involving so considerable cost to C.P.S. had to be planned carefully, in terms of public relations and objectives.

The work of conversion was started in the San Francisco area, beginning with the worst groups. To date, some 4,000 persons in San Francisco have been contacted and are in process of being converted. Everywhere, C.P.S. representatives have met with complete understanding on the part of beneficiary members, that abuses of the service must be curtailed in the interest of preserving a satisfactory physician-patient relationship. The decision to make this change is the result of evaluating recorded data of three years' experience.

To solve the problem of low compensation to the physician and abuse of the service by beneficiary members required the consideration of many factors. The Board of Trustees of C.P.S. had the following problems to solve in offering a new contract:

1. A contract that would automatically control abuse.
2. Coverage sufficiently broad to provide adequate medical care.
3. Cost appeal to the lower income groups.
4. Coverage and cost able to stand competition with insurance companies.
5. A contract requiring a minimum of administrative expense.
6. A sufficient scale of dues to provide income, in relation to use of service, to return a unit at par value to the medical profession.

C.P.S. is confident that the limited surgical and two-visit deductible contracts will answer these six points.

As the program of conversion proceeds from San Francisco to Alameda and Los Angeles, and then to the rest of the State, the unit value, already on the upswing, will show further improvement. The entire job will take not less than six months, nor more than a year.

* * *

(COPY*)

CALIFORNIA PHYSICIANS' SERVICE

A Non-Profit Corporation

153 Kearny Street, San Francisco

July 9, 1942.

Dear Doctor:

Recently criticism was expressed by the Alameda County Medical Association regarding some phases of

† Address: California Physicians' Service, 153 Kearny Street, San Francisco. Telephone EXbrook 0161. A. E. Larsen, M. D., Secretary.

Copy for the California Physicians' Service department in the OFFICIAL JOURNAL is submitted by that organization.

For roster of nonprofit hospitalization associates in California, see in front advertising section on page 3, bottom left-hand column.

* This is a copy of a letter sent to some professional members who had resigned. Reprinted here for the information contained therein.

the C.P.S. plan. Carefully recorded experience in the C.P.S. office during the past three years confirms the need for change. The major faults in the old plan were: (1) Low return to the doctor for his services to beneficiary members; (2) Abuse of "full coverage" by a minority of the beneficiary membership.

To correct this, C.P.S. is transferring all "full coverage memberships" to two-visit deductible or surgical contracts. One hundred and seventy groups, or approximately 4,500 members, are actually in process of transfer in San Francisco County, and we are starting on Alameda groups next week. The entire job of converting 1,500 groups in the State will take not less than six months. It will be done district by district, taking the worst groups first. As this conversion progresses, the unit value, already on the upswing, will show further improvement. We believe the unit will reach par under this new plan.

By requiring the member to pay the doctor's "private patient fee" for the first two visits in each separate illness, we will automatically reduce abuse of service.

So far, in this process of conversion, we are finding a complete understanding and acceptance on the part of beneficiary members of the need for this change in order to preserve a satisfactory physician-patient relationship. However, the groups in Alameda County are naturally uncertain about the continuing availability of medical care in Alameda, and will continue to be uncertain unless the medical profession expresses confidence in C.P.S. The individual physician can be of great assistance by giving a word of encouragement when inquiries are made.

The incident we have gone through in Alameda County, while unpleasant at the time, has undoubtedly had a constructive effect. It acted as a stimulant that caused widespread discussion throughout the State. The recommendations of the study committees, appointed by the C.M.A., have resulted directly in the changes now in process in C.P.S.

Your resignation as a Professional Member of C.P.S. was forwarded to us as a part of the official action of the Alameda County Medical Association. Inasmuch as your County Society has rescinded its action, and in view of the changes being made in the C.P.S. plan, we understand that these resignations are withdrawn and that these names should be placed again upon the list of active members of C.P.S. Would you please confirm this by signing and returning the enclosed postcard to this office.

Very sincerely,

A. E. LARSEN, M.D.
Secretary-Medical Director.

* * *

San Diego Doctors Pool Resources to Guard Health of War Workers

Re: Linda Vista Project

On June 30 the California branch of the medical profession completed the first two months of successful experiment in cooperative service in the San Diego area which may have a profound effect both upon the outcome of the war effort and the profession's place in that effort. Importance of the experiment, which may be extended to other parts of the state, is emphasized by California's preeminent place in the national war picture with about \$6 billion in war contracts comprising aircraft, ships and military and naval installations.

Early this spring public health authorities began to take action to prevent spread of epidemics in congested national health centers. Attention was centered on San Diego which received the largest influx of defense workers. The United States public health service had been given the responsibility of providing necessary medical care and public health facilities. It was stated emphatically that this would be done through their own personnel if other plans could not be worked out.

California Physicians' Service, largest cooperative medi-

cal organization of its kind in the United States and comprising about 5000 of the 7000 medical men of California, and offering full coverage medical and hospital care to workers in the lower income brackets, accepted the challenge. Representatives of the CPS, envisioning the possibility of government medicine starting in California, went to Washington and conferred with the United States public health service and the federal housing authority. A basic plan was worked out and approved by Washington officials, and presented to the San Diego County Medical Society and approved by that body. A special committee of San Diego physicians was appointed to work with CPS.

On May 1, 1942, operation of the plan began at Linda Vista project, San Diego. At that time there were about 3000 families or 12,000 individuals housed there. Medical needs have been met through the efforts and machinery of the local medical profession which will have control at all times. Some 20 per cent of the families signed up in less than six weeks.

Here's what the defense worker and his family living in Linda Vista received from private practitioners for \$60 a year: complete medical and surgical care, with limitations on chronic conditions in adults; a waiting period of ten months for obstetrics. Nothing is barred. In addition the family receives hospitalization in cooperation with the hospital service of Southern California. This service is limited to 14 days and partial payment on obstetrical cases after ten months' waiting period.

In the near future the national housing agency will construct suitable facilities on the project which will be rented to CPS. Temporary quarters are occupied at present. The organization employs full time physicians, subject to the approval and under the direction of the local county society committee. They work in the medical center caring for ordinary illnesses, but refer the more serious cases to local physicians.

Development of similar programs to meet the need for medical care in the rapidly expanding national defense centers of the state will relieve overworked local physicians and at the same time reduce possibilities of epidemics.—San Jose Mercury Herald, July 4.

MEDICAL EPONYM

Osgood-Schlatter's Disease

Dr. Robert B. Osgood (b. 1873), Boston, described "Lesions of the Tibial Tubercle Occurring During Adolescence" in the *Boston Medical and Surgical Journal* (148:114-117, 1903). The author made the following statements:

"The adolescent tibial tubercle, from its situation and mode of development, is susceptible to injuries, especially in athletic subjects. These lesions are usually caused by a violent contraction of the quadriceps extensor.

"Fracture and complete avulsions of the tubercle are rare, cause loss of function, and are easily diagnosed, usually clinically and always by means of the x-ray.

"Avulsions of a small portion and partial separation of the tubercle are more common. They do not cause complete loss of function, but without treatment, long continued serious annoyance. The diagnosis should be made by a combination of the clinical and x-ray pictures, and before the latter are accepted as evidence both knees should be skiagraphed and accurate technique observed."

Professor Carl Schlatter (1864), of Zurich, independently discussed "Verletzungen des schnabelförmigen Fortsatzes der oberen Tibiaepiphyse [Injuries to the Beak-shaped Process of the Upper Epiphysis of the Tibia]" in *Brun's Beiträge zur klinischen Chirurgie* (38:874-887, 1903). A portion of the translation follows:

"There occurs, in the region of the knee, a typical form of injury, not very uncommon, whose clinical picture, in spite of all the recent advances in diagnosis, is not yet satisfactorily clear to us, as I realize from a fruitless search for a comprehensive study of this injury in the literature, and also from my own errors in diagnosis. This is the separation of the beak-shaped process of the upper tibial epiphysis, which encompasses the head of the tibia anteriorly."—R. W. B., in *New England Journal of Medicine*, Vol. 226, No. 19.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-Five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings†

California Medical Association, Hotel Del Monte, Del Monte, California. Date for 1943 Session not yet decided.

American Medical Association, San Francisco. Date of 1943 Session not yet decided.

The Platform of the American Medical Association

The American Medical Association advocates:

1. The establishment of an agency of Federal Government under which shall be coordinated and administered all medical and health functions of the Federal Government, exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health, and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

Medical Broadcasts*

The Los Angeles County Medical Association:

The following is the Los Angeles County Medical Association's radio broadcast schedule for the month of August, 1942:

Saturday, August 1—KFAC, 8:45 a.m., Your Doctor and You.

Saturday, August 1—KECA, 10:30 a.m., The Road of Health.

Saturday, August 8—KFAC, 8:45 a.m., Your Doctor and You.

Saturday, August 8—KECA, 10:30 a.m., The Road of Health.

Saturday, August 15—KFAC, 8:45 a.m., Your Doctor and You.

Saturday, August 15—KECA, 10:30 a.m., The Road of Health.

Saturday, August 22—KFAC, 8:45 a.m., Your Doctor and You.

† In the front advertising section of *The Journal of the American Medical Association*, various rosters of national officers and organizations appear each week, each list being printed about every fourth week.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Saturday, August 22—KECA, 10:30 a.m., The Road of Health.

Saturday, August 29—KFAC, 8:45 a.m., Your Doctor and You.

Saturday, August 29—KECA, 10:30 a.m., The Road of Health.

Pharmacological Items of Potential Interest to Clinicians (From the U. C. Pharmacologic Laboratory—Chauncey D. Leake, Director):

1. *Bibliographical notes*: C. C. Thomas, Springfield, Ill., will issue C. Gemmill's *Physiology of Aviation*, as well as E. C. Hoff and J. F. Fulton's *Bibliography of Aviation Medicine*. The latter recommend a 5-foot shelf on Aviation Medicine (*Bull. Med. Lib. Assoc.*, 30:1, July, 1942). Symposium on War Medicine, edited by W. S. Pugh, published by Philosophical Library, 15 East 40th St., New York. Dr. J. G. Yoshicka, 600 20th St., N.W., Washington, D. C., performs a loyal, useful service in issuing mimeographed Far Eastern Science Bulletin, giving English abstracts of articles published only in Chinese or Japanese. The new A.M.A. symposium on *Glandular Physiology and Therapy* is out (Chicago, 1942). J. B. Neal has compiled a summary on *Encephalitis* (Grune and Stratton, New York, 1942). R. L. Kahn's *Serology in Syphilis Control*, is excellent (Williams and Wilkins, Baltimore, 1942). Burgess Publishing Co., 426 South Sixth St., Minneapolis, announces publication of F. Bernheim's *Interaction of Drugs and Cell Catalysts*.

2. *Cautions*: I. A. Mirsky and associates find protamine zinc insulin administration, too long continued, may lead to disuse atrophy of whatever pancreas tissue may be able to function, so that it is dangerous for prophylaxis of, even though beneficial in therapy of, diabetes mellitus (*Science*, 95:583, June 5, 1942). L. E. H. Whitby comprehensively discusses the hazards of transfusion (*Lancet*, 1:581, May 16, 1942).

3. *Endocrines*: Neat summary symposium on use of various hormones in general practice appears in the April *Practitioner* (148:193-218, 1942). The really excellent reviews of G. W. Thorn on desoxycorticosterone, and E. C. Hamblen on progesterone (*J. Mt. Zion Hosp.*, 8:1177, 1200, 1942) were supposed to have part of the special issue honoring B. S. Oppenheimer. C. L. Foster (*J. Endocr.*, 3:79, 1942) finds that stilbesterol implantation in immature rats causes secretory exhaustion of the anterior pituitary with cytoplasmic vacuolization. P. D. Boyer, et al. (*J. Biol. Chem.*, 143:439, 1942) show that manganese deficiency reduces growth and sexual development.

4. *Metabolism*: G. A. Alles and G. A. Feigen (*Amer. J. Physiol.*, 136:392, 1942) report that 10-40 mgm. benzedrine inhibits voluntary work fatigue, with effect greater than 10 times as much caffeine. J. S. Kirby-Smith, H. F. Blum and H. G. Grady (*J. Nat. Cancer Inst.*, 2:483, 1942) discuss ultraviolet skin radiation as a factor in carcinogenesis. C. E. Corlette describes the heat absorbing capacity of winds in relation to the human body (*Med. J. Austral.*, 1:354, Apr. 18, 1942). B. Albagli (*O. Hosp.*, 21:529, 1942) finds basal metabolic standards of Krogh more similar to Brazilian standards, which are lower than those given by U. S. writers.

5. *Sulfanilamide*: E. A. Lum (*Lancet*, 1:585, May 16, 1942) finds that sulfanilamide diffuses faster than

acriflavine or gentian violet. R. V. Hudson and R. Smith summarize several year's experience with prophylactic and therapeutic value of intraperitoneal sulfanilamide (*Lancet*, 1:437, Apr. 11, 1942). F. L. Lawson (*Amer. J. Physiol.*, 136:494, 1942) notes that sulfanilamide improves altitude tolerance of animals—as should anything that reduces cellular oxidation.

6. *Eyedeas*: W. B. Draper and R. W. Whitehead (*Lancet*, 1:442, Apr. 11, 1942) report on chances for resuscitation after overdose of ether (99 per cent), divinyl oxide (97 per cent) and chloroform (90 per cent). M. McGeorge (New Zealand), and M. Sherif and F. H. Smirk (Cairo) report on the pressor effects of S-methyl isothiouraea sulfate (*J. Physiol.*, 100:474, 1942). E. J. Carey is making interesting studies on ameboid motion of motor nerve plates (*Amer. J. Path.*, 18:237, 1942). O. C. Brantigan and J. C. Owings (*Bull. Sch. Med. Univ. Maryland*, 26:247, 1942) confirm S. A. Petroff's observation that detergents like Na tetradecyl sulfate enhance antiseptic action of compounds like azochloramide, and may be put in pleural cavities to clear pyogenic empyema.

Mechanism of Action of War Gases

1. Intensity of biological action of any chemical is determined by (1) dosage (mass of chemical per mass of living material); (2) ratio of rate of absorption and distribution of the drug to its rate of destruction or excretion; (3) physico-chemical properties of the drug (solubilities, polarity, molecular and energy organization, dissociation, optical properties), and (4) peculiar characteristics of individual living material involved (age, metabolic and allergic state, enzyme balance):

$$I = (f) \left[D \frac{rA}{rE} \right], C, S$$

2. War gases are related to aliphatic hypnotics and inhalation anesthetics like alcohol, ether, chloroform; they usually contain hydrocarbon groups (lipophilic), halogen (chlorine or bromine—hydrophilic) and a polarizing group (oxygen, sulphur or arsenic—proteophilic).

H-CH ₂ CH ₂ -CH	H-CH ₂ CH ₂ -AsCl ₂
Alcohol	Ethyl dichloroarsine
Cl ₃ C-H	Cl ₃ C-NO ₂
Chloroform	Chloropicrin
(H-CH ₂ CH ₂) ₂ O	(Cl-CH ₂ CH ₂) ₂ S
Ether	Mustard gas

3. Chlorine (or bromine) splits off slowly; even if some HCl is formed, buffering powers of living tissue would neutralize most of it, preventing acid injury; further, acid burns involve protein precipitation, whereas war gas injury is characterized by cellular destruction and protein hydrolysis. Molecularly intact mustard gas has been isolated from deep skin layers, after injury.

4. Configuration, adlineation, and interatomic angle forces of war gas molecules are sufficient, if enough molecules are present, to distort oil-protein-water interface, comprising cell boundary, and to rupture it, leading to cell disintegration, with consequent autolysis, inflammatory reaction, vascular breakdown, necrosis, and slow removal of necrotic tissue and gradual repair. The effects of war gases on the skin are similar to sunburn or poison oak.

5. War gas activity is reduced by acid or alkaline hydrolysis, oxidation, and adsorption; soap and water effective as detergent adsorbent; 3.5 per cent NaOCl (Clorox, Puex, Sani-Chlor, etc.) effective as oxidant; baking soda solution effective for alkaline hydrolysis; delicacy and sensitivity of mucous membranes compared

to skin requires dilution of optimum skin-effective solutions; significance of oxygen for lung injury.

6. Implications for protection and treatment: (1) air raid shelter or blackout room, doors and windows closed, for civilians; (2) for military and defense personnel, masks, goggles, oilskin or cellophane clothing, heavy rubber gloves and overshoes; (3) necessity of speedy action if contact suspected; train civilians in self-aid; dilute baking soda solution for washing eyes, nose, throat; dilute sodium hypochlorite solution on skin, followed by lots of soap and water; (4) medical management of actual war gas injury is symptomatic.—D. F. Marsh and C. D. Leake, San Francisco, May 29, 1942.

Suggested Readings on Medical Aspects of War Gas Injury

1. *General on Laws of Gases, Absorption, Asphyxia*: Y. Henderson and H. Haggard's Noxious Gases and Principles of Respiration Influencing Their Action, New York, 1927.

2. *High Explosive Gases*: C. K. Drinker's Carbon Monoxide Asphyxia, Oxford, 1938; E. J. Van Lier's Anoxia: Its Effect on the Body, Chicago, 1942; W. F. von Oettingen's Toxicity and Potential Dangers of Nitrous Fumes, Publ. Health Bull. 272, Washington, 1941; Proc. Board Chemical Warfare Service investigating disaster at Cleveland Hospital Clinic, May 15, 1929, Washington, 1929; Symposium on "blast," Proc. Roy. Soc. Med., Sect. Surg. Path., 34:171, 1942.

3. *Oxygen Administration*: A. E. Guedel's Inhalation Anesthesia, N. Y., 1937; T. Sollmann's Pharmacology, 6th ed., Philadelphia, 1942, pp. 809-818; L. Goodman and A. Gilman's Pharmacological Basis of Therapeutics, N. Y., 1941, pp. 677-693; A. L. Barach, J.A.M.A., 103:1690, 1934; W. M. Boothby, J.A.M.A., 113:477, 1939.

4. *Incendiaries*: J. E. Zanetti's Fire from the Air, N. Y., 1941; E. Fletcher and R. W. Raven's War Wounds and Injuries, Baltimore, 1940; A. Blalock's Principles of Surgical Care: Shock and Other Problems, St. Louis, 1942; C. P. Wakeley, War Burns and Their Treatment, Practitioner, 146:27:1941; E. W. Godding and H. E. Notton's Phosphorus Burns, Brit. Med. J., 1:433, Apr. 4, 1942. A. B. Wallace's Treatment of Burns, London, Oxford, 1941, is excellent. So is H. N. Harkins' volume, published by C. C. Thomas, Springfield, 1942; see also his article in J.A.M.A., 119:385, May 30, 1942.

Merck & Co., Rahway, N. J., will send mimeo brochure Treatment of War Injuries: Wounds, Burns, Shock, Poisoning by Gas (April, 1942) to any physician.

5. *General on War Gases*: OCD Manual Protection Against Gas, Washington, 1941. Medical Manual of Chemical Warfare, 1st American edition, Brooklyn, 1941—a reprint and not so well done, of a 1918 British manual. Detection and Identification of War Gases, 1st American Edition, Brooklyn, 1941—unsatisfactory reprint of 1918 British manual. Treatment of Casualties from Chemical Agent, Technical Manual 8-285, War Dept., Washington, 1941 (with subsequent revisions).

The best all around volume on the medical aspects of war gases, including psychological, is Curt Wachtel's Chemical Warfare, Chemical Publishing Co., Brooklyn, 1941, ix + 310 pp.

E. B. Vedder's Medical Aspects of Chemical Warfare. Baltimore, 1925, remains a classic.

A. A. Fries and C. J. West's Chemical Warfare, N. Y., 1921, is not so hot.

A. M. Prentiss' Chemicals in War, New York, 1937, is most comprehensive.

6. *Chemistry*: M. Sartori's (trans. by L. W. Marri-son) The War Gases, N. Y., 1940.

7. *Pathological Effects*: The Great Classics are F. P. Underhill's *The Lethal War Gases: Physiology and Experimental Treatment*, Yale, 1920, and M. C. Winternitz's *Pathology of War Gas Poisoning*, Yale, 1920. Still sound is the Medical Research Committee's *Atlas of Gas Poisoning*, London, 1918. Important are H. L. Gilchrist's *Residual Effects of Warfare Gases*, U. S. Printing Office, Washington, 1933. A. S. Warthin's *Medical Aspects of Mustard Gas Poisoning*, St. Louis, 1919, is dated. British reports in 1919-1920 issues of J. Roy. Army Med. Corps; German data in Z. ges. expt. Med., 1921.

Calling attention to additional pharmacological items of potential interest to clinicians:

1. *Confirmations*: Yale surgeons S. C. Harvey and J. S. Gardner confirm Californians C. Gurchot and N. D. Mellars (*Science*, 92:516, 1940) that diethylene glycol is useful for heat sterilization of sharp instruments (*Yale J. Biol. Med.*, 14:547, 1942). Yalerman L. L. Langley and R. W. Clarke confirm Californians G. Girrogossintz and E. S. Sundstroem (*Proc. Soc. Exp. Biol. Med.*, 36:432, 1937) that low atmospheric pressure puts increased demand on adrenal cortex (*Yale J. Biol. Med.*, 14:527, 1942). Watch for Sundstroem's monograph (*Univ. Calif. Memoirs*, in press).

2. *New Books*: Stimulating "must" is *The Scientific Attitude* (\$0.25 Pelican Book, issued by Penguin Series, 41 E. 28th St., N. Y., 1942) by Cambridge geneticist C. H. Waddington now interested in scientific basis for ethics. This brochure covers relations of science to history, art (all phases), communism and religion. Harvard Press announces late R. Schoenheimer's *Dynamic State of Body Constituents* (\$1.75), worthy companion volume to Salter's *Metabolism of Iodine and Drinker's Lymphatics*. Timely is T. Lewis' *Pain* (MacMillan, N. Y., 1942). Also R. D. Gillespie's *Psychological Effects of War on Citizen and Soldier* (Norton, N. Y., 1942). Doubt the wisdom of reprinting out-of-date, hide-bound, "official" British War Office Manuals revised (poorly) from ideas of 25 years ago—such as *Memoranda on Medical Diseases in Tropical and Sub-Tropical Areas*, and *Medical Manual of Chemical Warfare* (Chemical Publishing Co., Brooklyn). These compound confusion of thought, perpetuate antiquated ignorance, and by means of fascist anonymity dodge criticism. Our own "official" war manuals might give individual or board authorship to assure responsibility. Present system of anonymous officiality tends to establish a canon of scientific thought, with which to differ is heresy. Editorial boards of scientific and medical journals often act as self-appointed guardians of the canon, happily hunting and condemning what they think to be heresy, sometimes without reading it!

3. *English Carry On*: W. W. C. Topley's Croonian (Sadlerian) Lecture on the Biology of Epidemics appears in May, 1942 *Proceedings of Royal Society* (B; 130:337). Sulfamethazine, dimethyl derivative of sulfadiazine, is said by D. W. Macartney, (*Lancet*, 1:639, May 30, 1942) to be ten times as soluble as sulfadiazine and thus not as likely to cause renal damage, whereas it is equally effective in pneumonia, meningitis, and gonorrhea. J. M. Barnes (*ibid.*, p. 531, May 2) finds 1 per cent cetyltrimethylammonium bromide ("Ctab") an excellent skin and instrument antiseptic. S. Alstead proposes charcoal filled blanket for deodorizing discharges (*ibid.*, p. 669, June 3).

4. *So Do the Australians, Swedes, Indians and Swiss*: T. E. Wilson's detailed study of Bone Marrow in Anemia (*Med. J. Austral.*, 1:513, May 2, 1942) suggests (editorially, p. 530) consideration of refractory anemia so well described by R. R. Bomford and C. P. Rhoades

(*Quart. J. Med.*, 10:175-281, 1941). M. Morrissey offers (*ibid.*, 1:543, May 9, 1942) important discussion of measurement of cardiac output by CO₂ method. Errors in calculating cardiac output are discussed by A. Aperia (*Acta. Physiol. Scand.*, 3:235, 1942). G. Hevesy and L. Hahn study ion permeability with radio tagging (*ibid.*, pp. 123 and 193). E. Nyman surveys atropine derivatives (*ibid.*, Suppl., x). B. Emilsson reports (*ibid.*, p. 335) bee venom reverses adrenalin action, but not ephedrin or benzedrin. The 3 Chopras discuss positive correlation of cannabis sativa to mental disease and crime in India (*Ind. J. Med. Res.*, 30:155, 1942). They also note strong digitalis action of cereberin, a glucoside from *Cerbera Odollam*. P. Decker gives an excellent analysis of post-operative complications (*Helvet. Med. Acta.*, 9:81, 1942). R. T. Meyer notes adrenalytic action of benzylimidazolone (*ibid.*, 8:18, 1941). F. Verzar reviews function of adrenal cortex (*ibid.*, Beihefte).

5. *Endocrinology*: The big names contribute well to the June, 1942 issue, dedicated to R. G. Hoskins. M. R. Castex reports on hyperglycemic factor in normal, diabetic and pregnant urine (*Bol. Acad. Nac. Med. Buenos Aires*, Oct., 1941, p. 380).

6. *Eyeopener*: H. R. Rosenberg's *Chemistry and Physiology of the Vitamins*, (Intersci. Pub., N. Y., 1942) is superbly organized and documented, including patents.

American Physicians' Art Association: Prizes to California Physicians.—The fifth annual exhibition of the American Physicians' Art Association was held June 8-12, 1942, at Atlantic City, N. J., in Convention Hall, under the same roof with the American Medical Association.

This exhibition was enthusiastically acclaimed as most attractive, as evidenced by the fact that the 40' x 60' room was filled with visitors at all times. There were 350 original art works, a large number considering war time. Seventy-three prizes were awarded. Under the new rules, no artist may receive more than one award in one year. One of the interesting developments of the exhibition was that physicians returned again and again, bringing along friends and families. In many instances, doctors' wives brought the doctors. The estimated attendance was 15,000, and it is doubtful that a single visitor to the convention missed viewing the art exhibit.

Mead Johnson & Company's ambition to make the American Physicians' Art Association self-sustaining will probably be attained when the membership reaches 1,000. The outstanding success of the 1942 exhibition has assured a firm foundation and augurs well for the future. F. H. Redewill, M. D., San Francisco, is the secretary of the Association.

California physicians who received awards include:

LIST OF AWARDS

Name	Title	Medium
Stanley Boller, M. D. Los Angeles, Calif. Trophy—Medal.	"Nude"	Photograph
Frederick J. Colbert, M. D. Long Beach, Calif. Trophy—Medal.	"Desert Moonlight"	Oil
Chelsea Eaton, M. D. Oakland, Calif. Trophy—C Cup.	"The Elaine"	Oil Seascape
W. K. Fisher, M. D. Pacific Grove, Calif. Trophy—Special Cup.	"Right Honorable Winston Churchill"	Oil
Harry S. Fist, M. D. Los Angeles, Calif. Trophy—Gold Key.	"Expressions"	Wood Carving (Avocado Seeds)
S. R. Monaco, M. D. Los Angeles, Calif. Trophy—A Cup.	"Sgraffiti Vase"	Ceramics

F. H. Redewill, M. D. San Francisco, Calif. <i>Trophy—A Cup.</i>	Oil
John Tavlopoulos, M. D. San Francisco, Calif. <i>Trophy—Medal.</i>	Oil
Paul E. Wedgewood, M. D. San Diego, Calif. <i>Trophy—Gold Key.</i>	Ceramics

National Foundation for Infantile Paralysis: Awards for U. C. and U. S. C.—Checks totaling \$325,844.25 have been forwarded to 26 institutions in various parts of the United States and Canada to carry on virus and after-effects research work and education in the fight against infantile paralysis, according to an announcement made by the National Foundation for Infantile Paralysis, Inc.

The National Foundation for Infantile Paralysis, Inc. leads, directs and unifies the fight against infantile paralysis by means of its research, epidemic and educational programs. It also provides medical, nursing and hospital care and orthopedic appliances for needy victims of the disease through its more than 2,400 Chapters.

The funds which make possible the Foundation's programs are raised annually in January during the various celebrations of the President's Birthday.

The California grantees and the amount of each grant follow:

For After-Effects Research

University of California, Medical School, San Francisco, California, \$5,050.00.

University of Southern California, School of Medicine, Department of Anatomy, Los Angeles, California, \$890.00.

Announcement of a five year, \$300,000 grant to the Johns Hopkins University, Baltimore, for an intensive and long time study of the disease of infantile paralysis was recently made.

This is the largest single grant made by the National Foundation since it was organized in 1938. It will be used to establish and conduct the Center for the Study of Infantile Paralysis and Related Viruses at the Hopkins.

Consultants on O.C.D. Blood and Plasma Program.

—Under the program recently launched by the Medical Division of the Office of Civilian Defense (O.C.D.) and the U. S. Public Health Service to provide plasma for the treatment of civilians injured in warfare, regional consultants have been appointed to advise hospitals on technical problems related to the establishment of blood and plasma banks.

Dr. Emeric Dobos, Senior Surgeon (R), U. S. Public Health Service, is on active duty in the Ninth Region (address: 1355 Market Street, San Francisco). The blood and plasma bank program is at present confined to vulnerable areas within 300 miles of the ocean and gulf coasts. The Subcommittee on Blood Substitutes, Division of Medical Sciences, National Research Council, serves in an advisory capacity to the Medical Division of the Office of Civilian Defense as it does to the Medical Departments of the Army and Navy and the American Red Cross.

National Foundation for Infantile Paralysis: Awards to Stanford University.—Four additional grants totaling \$20,220.00 for the purpose of providing

scholarships and training in the field of physical therapy—a field very important in the care of infantile paralysis—have been announced by the National Foundation for Infantile Paralysis, Inc., 120 Broadway, New York.

The list of awards, including the purposes, the institutions and the amount of each award, follows:

Stanford University, California—\$5,000.00. To provide fifty scholarships for properly qualified students in physical therapy.

School of Health, Stanford University, California—\$6,920.00. To provide training in physical therapy for additional students.

Since last May, the National Foundation for Infantile Paralysis has awarded grants totaling \$347,564.25 to carry on its research and educational programs.

O.C.D. Urges Recruitment of More Nurses' Aides.

—The Civilian Mobilization Branch of the Office of Civilian Defense (O.C.D.) recently issued a memorandum to its regional representatives urging a concerted effort to stimulate the recruitment and enrollment of Nurses' Aides so as to relieve the serious shortage of nursing personnel in hospitals.

A report dated June 20 showed that 25,905 Nurses' Aides had been enrolled, of whom 12,890 had been certificated. This is only one-fourth of the 100,000 set as a goal at the beginning of the campaign in the summer of 1941. Reports from all parts of the country indicate that the training has been well carried out and the Nurses' Aides are now giving valuable service in their assignments.

The memorandum reveals that some hospitals are reported to be accepting volunteer workers without training and permitting them to carry out many of the tasks usually performed by Nurses' Aides. Although several different types of volunteer assistants can be used in hospitals, untrained workers should not be assigned to duties similar to those of trained Nurses' Aides. Such a practice militates against the establishment of a reliable, disciplined corps of workers and deters enrollment of Nurses' Aides, it was said. . . .

Without the assistance of large numbers of Nurses' Aides to supplement the registered nurses, many hospitals report that they would be unable to provide adequate nursing services. If coastal and industrial cities should be subjected to enemy attack, the need for Nurses' Aides will be greatly accentuated. The goal of 100,000 trained Nurses' Aides must be reached, the Medical Division declares. In no other branch of service can women be of greater value to the war effort.

American Congress of Physical Therapy.—The

American Congress of Physical Therapy will hold its twenty-first annual scientific and clinical session September 9, 10, 11 and 12, 1942, inclusive, at the Hotel William Penn, Pittsburgh, Pa. The annual instruction course will be held from 8:00 to 10:30 a.m., and from 1:00 to 2 p.m. during the days of September 9, 10 and 11, and will include a round table discussion group from 9:00 to 10:30 a.m., Thursday, September 10. The scientific and clinical sessions will be given on the remaining portions of these days and Saturday morning. A new feature will be an hour demonstration showing technique from 5:00 to 6:00 p.m. during the days of September 9, 10 and 11. All of these sessions and the seminar will be open to the members of the regular medical profession and their qualified aides. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

Pacific Association of Railway Surgeons.—The annual convention of the Pacific Association of Railway Surgeons, which was scheduled to be held in Portland, August 14-15, 1942, has been cancelled. Members of the Association will be notified in case other arrangements are made.

Award of Geiger Medal in School of Medicine of Tulane University.—The Department of Tropical Medicine of Tulane University, New Orleans, Louisiana, has announced the award of the Geiger Medal for an outstanding thesis in the field of Public Health and Sanitation to Miss Grace Ivanhoe, a native of Oakland, California. She discussed in her thesis the epidemiology of amebiasis in St. Vincent's Infant Asylum in New Orleans. The conclusion was reached that poor personal hygiene on the part of children was an important factor in its spread. As a causative element, poor personal hygiene might also be applicable to prisons and mental hospitals.

American College of Physicians Will Hold Its 1943 Session in Philadelphia, April 13-16, 1943.—The American College of Physicians has announced its 27th Annual Session to be held in Philadelphia, Pa., April 13 to 16, inclusive, 1943. Heretofore, the college has held a five-day session, but in the interest of conserving time and expense of its members, the program will be condensed into four days, Tuesday through Friday. Dr. James E. Paullin, Atlanta, as President of the College, will have charge of the program of General Sessions and Lectures. Dr. George Morris Piersol, Philadelphia, as General Chairman, will be responsible for the program of Hospital Clinics, Panel Discussions, local arrangements, entertainment, etc. The general management of the session and technical exhibits will be handled by the Executive Secretary, Mr. E. R. Loveland, 4200 Pine St., Philadelphia.

Press Clippings.—Some news items from the daily press on matters related to medical practice follow:

Every Eligible Physician Should Be a Member

Medical organization at this time especially, must be strong in numbers, active and alert. Therefore, every eligible physician in every county should be encouraged to affiliate with his county medical society, the State Association and the A.M.A. If there is a physician in your county who is not a member but should be one, please see him and inform him of the advantages of joining.—The Ohio State Medical Association *Bulletin*.

Rodent Control Measures in Typhus Fever Cases

The Rodent Control Division upon being notified by the Division of Epidemiology of a case of Typhus Fever, immediately dispatches inspectors to the patient's home address and also to his place of business. These premises are thoroughly trapped. All rodents caught are tagged with red tags which give the address where caught. They are delivered to the Rodent Control Laboratory where the red tags call attention of the laboratory technician to the fact that the rodents came from a typhus infested area. The rats are combed for ecto parasites.

Intensive trapping is carried on for approximately two blocks in all directions from the focal points, after which the entire neighborhood is thoroughly serviced with poisoned baits in order to kill any rodents that have escaped the trapping. Insanitary conditions (such as uncovered garbage cans, accumulated trash, lumber piled directly on the ground, etc.) are ordered abated. After this work has been completed the Rodent Control rat-proofing inspector is then assigned to these districts to order any ratproofing that may be required.—*Bulletin of Los Angeles City Health Department*.

Doctor's Wife Has Big Role in Wartime

Meet the doctor's wife.
She's playing an increasingly important part in World War II.

With more and more of the Nation's doctors being called into service with the armed forces, whole communities find themselves turning to the doctor's wife for counsel, comfort and help.

In Arkansas, where draft rejections because of malnutrition have been abnormally high, doctors' wives are mapping a victory program for the duration—and after. Mrs. L. G. Fincher, president of the American Medical Association Auxiliary in that State, plans to make the work of her organization raising the nutritional standards of her state. She says:

"A doctor's wife always has a busy life, but now she must get busier. There are many ways in which she can serve her community, and helping people to understand the basic principles of nutrition.

"Helping the community to stay well through better nutrition is a job cut out and waiting for the doctor's wife."—*Oakland Tribune*, July 11.

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You Can Help Your Country By Donating Your Blood

Many of our splendid young Americans, heroes in foreign lands and on all the seas, are suffering from wounds and giving their blood in defense of the people at home. It is difficult, far from the fields of conflict, to realize how much they are doing for us.

Here, we in our peaceful, protected San Mateo county cities can do something easy, practical and without cost to help them, perhaps to save the lives of some of them—something to surely save the lives of many of us in the event of a serious enemy raid on these shores.

That "something" is the donation of blood at the San Mateo County blood bank or the Red Cross, a mere pint from each individual so helping.

Already there has been generous, patriotic response to the appeals of the bank management and of the Red Cross, but hundreds of donations are still needed.

Believing that the hesitation of some people may be due to a feeling that the extraction of a pint of blood may entail some slight danger or that the process may be painful, the Times made an investigation in regard to that yesterday, talking with Mrs. T. J. Hanzlík, secretary of the blood bank, and with the doctors and nurses. . . .

Here are a few bits of information for persons contemplating donations of blood:

The extraction of the blood is not painful.

It is not injurious.

It is helpful in many cases.

Blood is constantly being destroyed in the body and new blood being made.

These statements have been obtained from the doctors for the assurance of citizens inclined to be timid about offering their aid.

Persons donating blood must be between the ages of 18 and 60 and not under 115 pounds in weight, with blood pressure not below 100. Minors are required to present written permits signed by their parents. Mothers with infants under nine months old will not be accepted.

Dr. James F. Rinehart, in charge of the laboratory of the blood bank, states that 1000 units of plasma are needed, with about a third of that number on hand.

You can give your blood, a little of it, for your country—not amid the horrors of battle but with comfort as well as perfect safety during a pleasant half hour in the exceedingly interesting blood bank established by the citizens of San Mateo county, or to the mobile unit of the Red Cross. The thing to do is to dial San Mateo 3-1424 or call at the bank, 25 South El Camino Real, for an appointment, or watch for the dates the Red Cross mobile unit visits your community.—*San Mateo Times and Leader*, July 10.

• • •

Pomeroy Health Library Dedicated

Dr. John L. Pomeroy who served as health officer of Los Angeles County for more than 20 years assembled a public health law library which has grown from a few volumes to more than 3500 works on public health subjects. On June 24th, county officials, doctors of medicine, friends and co-workers of Dr. Pomeroy met in the building occupied by the Los Angeles County Health Department and dedicated the library to the memory of the late health officer, naming it the Dr. J. L. Pomeroy Memorial Library. Dr. Pomeroy died March 24, 1941 and this growing library will stand as a fitting memorial to this efficient and valiant public health worker.—*Weekly Bulletin of California State Board of Public Health*.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

Malpractice; Sufficiency of Evidence; Qualifications of Physician Testifying as Expert Witness

A recent decision of the California District Court of Appeal, First Appellate District, *Pierce v. Paterson*, 50 A.C.A. 606, presents in a malpractice action two questions of some interest to physicians and surgeons, namely, (1) what evidence is sufficient to require the presentation of a malpractice case to the jury for decision, and (2) what qualifications must a physician possess in order to be competent to testify as an expert witness in such an action.

The case of *Pierce v. Paterson* involved an appeal from an order granting a new trial after judgment for the defendant in a malpractice action against a physician. The plaintiff in the action contended that her son had died as the result of the defendant's negligent treatment of a finger injured in a home accident, the son having caught his finger in the door of the bathroom, severely injuring it. In answer to the call of plaintiff, the defendant treated the wound by lifting the injured nail, squeezing tincture of merthiolate underneath it, and then packing the finger in metanin jelly and bandaging it. This treatment in substantially the same manner was continued for several days, when the boy developed symptoms of a tetanus infection. The patient, on advice of another physician, was taken to the Alameda County Hospital where an antitoxin was immediately administered. The boy failed to respond to the treatment, and died the next day as a result of the infection.

After hearing the testimony on both sides, the case was submitted to the jury and a verdict was returned for the defendant. On motion of the plaintiff, the trial court granted a new trial, and on appeal from this order granting a new trial, it was necessary for the Appellate Court to pass upon the sufficiency of the evidence which the plaintiff must adduce before he is entitled to have the specific issue, of whether defendant's negligence has resulted in injury, presented to the jury, and also to pass upon the qualifications of the witness, Dr. Ruedy, who testified on behalf of the plaintiff.

The court reiterated the well-established rules of law that a physician and surgeon, in undertaking the treatment of a patient, cannot be held to guaranty the results of his treatment, but that he is bound to possess the degree of skill and learning ordinarily and usually possessed by physicians and surgeons practicing in the same locality, and is also bound to use reasonable and ordinary care and skill in administering medical and surgical treatment to the patient. On trial of the case, it was plaintiff's contention that the defendant physician had failed to use reasonable and ordinary skill in caring for the injured finger and, as a result of such failure, the boy had died. More particularly, plaintiff contended that the defendant had failed to use ordinary and reasonable care and skill, in that he had not properly cleansed and sterilized the wound, nor had he administered tetanus antitoxin. In support of this contention, the plaintiff presented the testimony of Dr. Ruedy, a physician practicing in Alameda County, as an expert witness. (For a more complete consideration of the requisite qualifications of an expert witness in a malpractice action, see the Medical

Jurisprudence article in the December, 1941, issue of CALIFORNIA AND WESTERN MEDICINE, where a California case was examined in which this same physician had testified on behalf of the plaintiff.) In the words of the Court:

"Dr. Ruedy, a physician and surgeon called by the plaintiff, testified that under the circumstances of the case 'the use of reasonable medical care and skill by the attending physician demanded a thorough cleaning of the sutured finger and to give the finger free access to the air to overcome any anaerobic tetanic germs'."

The Court said that where the evidence presented tends to show that the alleged negligence resulted in an infection producing death, it presents a case for the jury. Further, the Court held that from the "expert testimony" set forth above, it could be reasonably inferred that the infection resulting in the boy's death would not have occurred if the wound had been properly cleaned and antiseptized. A new trial was granted after the decision of the Court in favor of the defendant because the trial judge, in his instructions to the jury, had limited the question of negligence to the failure of the defendant to administer tetanus antitoxin, and had precluded any consideration of the physician's alleged failure to sterilize.

The defendant had urged at the trial objections to the competency of the physician called by the plaintiff to testify as an expert witness on the question of what treatment a physician practicing in the locality would have administered in the exercise of reasonable medical care. The usual requirement is that the physician testifying be acquainted and familiar with the standards of care and skill ordinarily used and possessed in the locality in which the alleged malpractice has occurred, and that he be familiar with the usual methods of treating the particular injury or illness involved. The plaintiff's witness testified that he possessed this knowledge; and since his educational record and past experience so indicated the defendant physician could interpose no valid objection as to competency.

This case of *Pierce v. Paterson* again illustrates the importance of the expert testimony introduced by the plaintiff in a malpractice action. The testimony of the one physician called by the plaintiff was a very substantial factor in bringing about a decision against the defendant on this appeal from the order granting a new trial.

LETTERS†

Concerning Narcotic Regulations for Physicians Entering Military Service.

June 23, 1942.

George H. Kress, M.D.,
Editor, California and Western Medicine,
San Francisco, California.

Dear Doctor:

For your information and for the information of all physicians entering various branches of the military service, the Collector of Internal Revenue and the State Division of Narcotics Control advise that the following is the correct procedure to be adopted by all physicians entering military service with respect to their narcotic prescription books.

The office of the Collector of Internal Revenue advises that all physicians entering military service who are discontinuing private practice should report this

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

† CALIFORNIA AND WESTERN MEDICINE does not hold itself responsible for views expressed in articles or letters when signed by the author.

fact to the Collector of Internal Revenue and, if possible, should indicate what branch of the service they are entering and the time of entry. Communications containing this information should be addressed by the physician in the Northern California area to:

Collector of Internal Revenue,
Attention: Narcotics Division,
Federal Office Building,
San Francisco, California.

Physicians in the Southern California area should address such communications to:

Collector of Internal Revenue,
Attention: Narcotics Division,
Tenth Floor,
New Federal Office Building,
Los Angeles, California.

On receipt of such information, the Narcotics Division of the office of the Collector of Internal Revenue will place the physician on what is termed an "inactive list" for the duration of his military service. If the Narcotics Division is not so informed, physicians will be placed on the "delinquent list" and, it is stated, will encounter difficulty with the office of the Collector of Internal Revenue upon their discharge from military service.

The State Division of Narcotics Control advises that physicians should keep their narcotic prescription books in some safe depository with their other records. The books should not be sent back to the Division of Narcotics Control by the physician entering military service but should be kept for future use upon discharge from the armed forces.

Very truly yours,

HARTLEY F. PEART.

Concerning California Law Applicable to Persons Practicing Medicine Without a License.

(COPY)

Los Angeles, Calif., July 21, 1942.

Re: *Peo. vs. Earle Musgrave—No. 12692 (misdemeanor)*.

Dear Dr. Pinkham:

The above entitled case was called for trial July 20, 1942, in Division 7, Municipal Court, City of Los Angeles, where defendant waived trial by jury, and case was transferred to Division 8 for court trial before Judge LeRoy Dawson. Defendant was found guilty, applied for probation and case was set for hearing on application for probation, and for sentence in Division 8, August 3, 2 p.m.

At the conclusion of this trial, Judge LeRoy Dawson made the following comment:

"It is one of the most unfortunate situations we have in this State, wherein a person found guilty of practicing medicine without a license, endangering the lives of human beings, cannot be charged with anything but a misdemeanor. It is shameful that a person who violates these provisions of the medical laws cannot be adjudged guilty of a felony and given more severe punishment when the situation is an aggravated one, but our State Legislature has adjudged it to be a misdemeanor."

Yours very truly,

BOARD OF MEDICAL EXAMINERS,
S. W. BROOKS, Assistant Special Agent.

Concerning Dangers Connected with Home Canning.

State of California

DEPARTMENT OF PUBLIC HEALTH
612 Phelan Building, San Francisco

July 22, 1942.

To the Editor:—With the increase in home canning, it is anticipated that there will be many deaths due to botulism in California this year unless an extensive educational campaign is conducted. Your assistance in this program is requested.

Enclosed is a copy of a circular letter which we are sending to the County Medical Societies, together with the leaflet entitled, *If You Eat Home-Canned Foods, Read This—*. We are eager to obtain wide distribution for this leaflet, and would appreciate your aid in any way possible. Additional copies in any quantity you desire will be supplied by this office.

We also wish to thank you for sending us the addresses of the County Medical Societies.

Very truly yours,

(Signed) MILTON P. DUFFY,
Chief, Bureau Food and Drug Inspections.

(COPY)

To County Medical Societies, addressed:

With the increase in home canning, it is anticipated that there will be many deaths due to botulism in California this year unless an extensive educational campaign is conducted. Your assistance in this program is requested.

Enclosed is a copy of a leaflet, entitled, *If You Eat Home-Canned Foods, Read This—*. Additional copies in any quantity you desire will be supplied from this office. Will you undertake to give this leaflet wide distribution throughout the district under your jurisdiction?
612 Phelan Building.

Very truly yours,

(Signed) MILTON P. DUFFY,
Chief, Bureau Food and Drug Inspections.

Concerning a Training Course for Practical Nurses.

SAN FRANCISCO COMMITTEE FOR SERVICE TO EMIGRÉS
(Federation of Jewish Charities)

1600 Scott Street

San Francisco, Calif., July 3, 1942.

To the Editor:—We are enclosing an outline of the Training Course for Practical Nurses.

Very truly yours,

SAN FRANCISCO COMMITTEE FOR
SERVICE TO EMIGRÉS,
SANFORD TREGUBOFF, Secretary.

A short and intensive Training Course for Practical Nurses is now in progress under the sponsorship of the San Francisco Committee for Service to Emigrés. The instructor is Mrs. Alfred Heuermann, former Assistant Superintendent of Nurses at the Johns Hopkins Hospital.

There are 20 women enrolled, most of whom have had previous nursing experience in Europe. The main object of the course is to familiarize the students with American methods of simple home nursing. The women will be qualified to go into homes where the patients require bed care but where it is not necessary to have the services of a graduate nurse.

The course started on June 16, 1942, in the Mt. Zion Hospital Nurses Home and will be completed on July 15, 1942. The services of these women may be procured through the employment department of the San Francisco Committee for Service to Emigrés, 1600 Scott Street, telephone FI 4513.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XV, No. 8, August, 1917

EXCERPTS FROM EDITORIAL NOTES

Registration Fees.—Every licentiate has received a slip announcing that a registration fee of two dollars per annum has been imposed upon him by the legislature at the recent session. While this is presumably a "registration fee," it is really a tax for raising funds for the prosecution of violators of the Medical Practice act. The Board of Medical Examiners have not been able, with the funds accruing from the fines of convicted miscreants, to pursue a sufficiently vigorous campaign of elimination of quacks and others operating contrary to the law.

While the Medical Practice act is designed primarily for the protection of the public, and while any taxation for this protection should be in the nature of a public tax, we find on inquiry that it is a sound principle of jurisprudence to tax a craft whose calling requires regulation in order to carry out such regulation.

The accompanying letter from the Secretary-Treasurer of the Board of Medical Examiners will explain the machinery by which the tax is to be collected.

Board of Medical Examiners of the
State of California
Sacramento, California, July 3, 1917

Dear Doctor:

Replying to your recent inquiry, beg to advise that among the amendments passed by the 1917 Legislature was one providing for a \$2.00 registration fee payable to the Board of Medical Examiners by all holders of any form of certificate issued by this or prior boards regulating the healing-art in California.

The first payment of this fee is due January 1, 1918, and subsequently on January first of each year. Failure to pay the fee within 60 days after January first of each year automatically revokes the certificate, and a fee of \$10.00 must be paid to the Board of Medical Examiners in order to restore such certificate as may be thus revoked. . . .

The Board expects to forward a copy of the directory, to be published January first of each year, to each individual licentiate who forwards his fee as above noted.

Very truly yours,

(Signed) CHARLES B. PINKHAM, M.D.,
Secretary-Treasurer.

EXCERPTS FROM ORIGINAL AND OTHER ARTICLES

From an Article on "The Tonsils As a Focus of Infection," by John Mackenzie Brown, M.D., Los Angeles, Calif.—It has long been recognized that the tonsil plays an important rôle along with many other structures of the body, as a possible site of focal infection. But it has been only during the past decade that sufficient emphasis has been laid on the relative importance of the tonsil in comparison with other focal lesions in the production of morbid processes in other locations, and general systemic diseases. The work of such men as P. K. Brown, Billings, Shambaugh, Rosenow and others, has demonstrated conclusively that many pathological conditions of obscure origin are due either directly, or indirectly, to bacterial or toxic absorption from preëxisting or active processes in the tonsil. . . .

(Continued in Back Advertising Section, Page 22)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M.D.

Secretary-Treasurer

Board Proceedings

A regular meeting of the Board of Medical Examiners was held at Native Sons Hall, San Francisco, June 29 to July 2, inclusive.

Two hundred and twenty-four applicants reported for written examination, consisting of Physicians and Surgeons, Drugless Practitioners and Chiropodists. Several graduates of foreign medical schools were included in this list.

Some 23 hearings on citations were held, and the following changes in the status of California licentiates made:

Albert Bartlett Gray, M.D., revoked July 2, 1942;

Harold W. Lashier, M.D., revoked July 1, 1942;

Averell Hugh Owen, M.D., revoked July 1, 1942;

Walter Wayne Webb, M.D., revoked June 30, 1942;

Thomas D. Wyatt, M.D., revoked July 1, 1942;

Allan Prescott King, Drugless Practitioner, revoked July 2, 1942. In addition to the foregoing, Joseph Dumas Testa was found guilty and placed on five years' probation on terms.

The petition of Benjamin B. Armen, M.D., for restoration of his revoked certificate, was granted on June 29, 1942, and he was placed on probation without narcotic privileges.

News Items

"The State Board of Medical Examiners overstepped its powers in ruling that out-of-state persons who have diplomate certificates from the National Board of Examiners must wait one year before they can apply for a medical license in California, Attorney General Earl Warren said yesterday. In an opinion to Dr. Charles Pinkham, secretary-treasurer of the State Board, Warren said (Opinion NS-4378), the law clearly specified that the board may issue a license to holders of the national certificate with or without examination, but made no provision for one year's residence." (Sacramento Union, June 19, 1942.)

"The State Board of Medical Examiners late yesterday revoked the license of Dr. Thomas D. Wyatt of Redding on two charges of performing abortions and a charge of violating probation. Earlier the same day the Board had found Dr. Chester D. Sewall of Redding, guilty of two charges of performing illegal operations, but did not determine the penalty. Dr. Wyatt's license was revoked in 1939 on an abortion charge, but was restored a year later, and Dr. Wyatt was placed on five years' probation." (Redding Record-Searchlight, July 2, 1942.)

"The news story from San Francisco of how Michael Lee, 65, Alameda manufacturer of 'Merlek,' paid taxes on a net income of \$30,000 a year derived from the sale of his product over the last 12 years, would be funny if

(Continued in Back Advertising Section, Page 30)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6. News Items are submitted by the Secretary of the Board.